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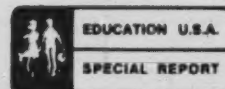
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ABSTRACT

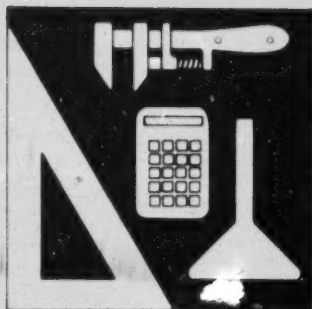
This special report on career education is to provide school practitioners at all levels, and others concerned with education, with an overview of the most up-to-date information in the area. The topics discussed are an overview of career education, the need for educational revolution in our schools because of the rapid development and promotion of career education, a definition of career education, various arguments by organizations pro or con the concept of career education, a description of four career education models, what is happening at the various State levels in career education, developments at the postsecondary level, innovation in instructional programs and materials, and the need for career counseling, guidance, and placement with education programs at all levels. A final chapter briefly considers the future of career education. (BP)

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CAREER EDUCATION

CURRENT TRENDS
in School Policies & Programs

U.S. DEPARTMENT OF HEALTH,
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Acknowledgment

Career Education is one of a series of special reports on current trends in school policies and programs. The purpose of the series is to provide school practitioners at all levels, and others concerned with education, with the most up-to-date information on problems which are at the core of today's constantly changing education scene.

Career Education was written by David Smoker. It was developed by the Education U.S.A. Special Reports staff: Shirley Boes, Editor; Roy K. Wilson, Editorial Director; Suzanne Ripley, Research Assistant; Cynthia Menand, Manager of Editorial Services. Production: Linda Brandt, Joan Lenz, Alice Mansfield and Andrea Olinger.



Overview

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Career Education holds the prospect of reshaping the American education scene from the primary grades through postsecondary education and beyond — a remarkable feat for a seemingly new development.

Although Career Education's antecedents date back much further, it moved onto center stage in 1971 when Sidney P. Marland, then U.S. commissioner of education, touted it as the top priority of the U.S. Office of Education (USOE) and as nothing less than the desirable way to reshape the country's educational system.

By November 1971, Marland had refined his view: "Career Education will be part of the curriculum for all students, not just some. It will continue throughout a youngster's stay in school from the first grade through senior high and beyond, if he so elects. . . . Every student leaving school will possess the skills necessary to give him a start to making a livelihood for himself and his family, even if he leaves before completing high school."

A lot happened in the Career Education field during the two-year period between Marland's statement and November 1973, when he resigned his Cabinet position as assistant secretary for education. How much happened can be gauged by a November 1973 statement by USOE's top education spokesman, John R. Ottina, who followed Marland as U.S. commissioner of education: "Career Education has generated so much support among educators, local school boards, state legislatures, industry and civic groups in the last three years that its widespread installation in schools and colleges seems assured," Ottina said. "The Office of Education will continue to provide national leadership, technical assistance and funding, as resources permit, to help speed the installation process," Ottina added.

Earlier in the year, Ottina had explained at a USOE-sponsored conference the motivation behind the widespread interest in Career Education and its

implications for the future: "...Sid Marland touched a resounding chord in the national psyche when he began to call . . . for career orientation and preparation programs . . . that would enable every student to choose a career he really wants and to get the training that would make success in that career not only possible but probable.

"We are talking about a curriculum restructuring that will help every one of the 54 million children in our elementary and secondary schools, plus another 8 million young people in college and other post-high school programs, select and prepare for careers conceivably picked from a universe of 20,000 available occupations. . .," Ottina said.

"Developing instructional units for kindergarten through the high school years and beyond in broad career categories, training teachers in their use, providing better guidance and counseling programs, and working out some pretty detailed logistics all along the line add up to a major undertaking on the part of an educational system that comprises 16,000 individual school districts and 2,300 separate colleges and universities. The point is that Career Education is going to take time — and talent — and commitment — and money. I personally think it can be done," he added.

High-Level Advocates Push Concept

Some high-level spokesmen have endorsed the concept of Career Education since its earliest days. Pres. Richard Nixon, for instance, noted in his 1972 State of the Union Address that "schools should be doing more . . . to prepare students for a productive and fulfilling life." The President said this had not been happening in the nation's schools because of the "inflexibility of our educational system, including the fact that it so rigidly separates academic and vocational curricula."

"Career Education," said Nixon, "provides people of all ages with broader exposure to and

better preparation for the world of work. It not only helps the young but also provides adults with an opportunity to adapt their skills to changing needs, changing technology and their own changing interests. . . ."

With this kind of federal exposure, Career Education has generated interest and discussion by members of Congress, educators at all levels and some prestigious national organizations, including the National Education Assn., American Vocational Assn., Council of Chief State School Officers, Chamber of Commerce of the United States, National Alliance of Businessmen, and Educational Testing Service.

The Need for a Revolution

Proponents of Career Education see it as an answer to many serious educational problems. They note that, in spite of the fact that only 20% of the jobs that will exist in this country in the 1980s are occupations requiring a college degree and that only 22% of U.S. young adults have a college degree, America's schools continue to be heavily college-preparatory in their curricula and counseling. They point to the following statistics showing that 2.5 million young people leave school each year without a saleable skill:

- 850,000 as public school dropouts.
- 750,000 as graduates from a high school "general curriculum" which has prepared them neither for a job nor for further education.
- 850,000 as college dropouts without a degree or an occupational skill.

These unprepared former students join the ranks of the unemployed or underemployed. Proponents contend that such facts argue strongly for a revolution in American education. They view Career Education as the kind of revolution called for.

The Opponent's View

In other quarters, the Career Education concept has been cursed as well as discussed. It has been variously described as "a concept in search of a definition," "just another educational gimmick," or as "nothing more than a new name for vocational education."

Influential educational leaders have expressed concern that Career Education will lead to a watering down of academic excellence, that the concept subverts American education to the mechanistic designs of industrial manpower needs and ignores humanistic goals, that it is "stealing" badly needed dollars from vocational education, and that it represents the means for continuing to repress minority groups' long-standing desire to enter higher-paying professional-level careers.

A government evaluation team which studied USOE's six school-based Career Education models in 1972 was frankly critical, concluding that the school-based models in question, in their beginning form, were "unlikely to be able to deliver any significant improvement in, let alone become the basis for, a 'restructuring of the entire K-12 education program around real life' as proclaimed."

Since that report was issued, the developmental models for Career Education have been placed under the direction of the National Institute of Education (NIE).

The controversy, pro and con, on the merits and shortcomings of Career Education is likely to continue. Meanwhile, the proponents are urging that the restructuring of American education — aided by widespread implementation of Career Education — occur as rapidly as possible.

The facts are that Career Education has deep roots in some basic philosophical tenets of American education, that many states and local school districts are already moving to refocus their entire educational program toward the concept, and that many educational leaders are thoroughly convinced that Career Education — if defined thoughtfully and implemented carefully — is indeed the new look for the nation's schools.



CAREER EDUCATION

CURRENT TRENDS in School Policies & Programs

Looking Ahead

The resignation of Sidney P. Weinberger and the uncertainties of future federal priorities in late 1972 caused some Career Education programs to ask, "What is all this for the future?"

In a statement specially prepared for the Special Report, U.S. Commissioner of Education John O'Brien said: "We have taken a number of steps to strengthen and consolidate the federal commitment. An Office of Career Education has been established and efforts to reorganize an Office of Education Development can advance the concept. Secretary (Carter 2) Weinberger has designated Career Education as a priority to be followed closely by his office. The Dept. of Health, Education and Welfare. We have asked Congress for funds to support new Career Education initiatives and will continue to do so."

"Career Education is and will remain a major objective in the Administration's effort to help schools and colleges develop quality educational programs readily available to every student," O'Brien said.

Chapter 1



The Need for Revolution In Our Schools

Behind the relatively rapid development and promotion of Career Education are some frightening facts which indicate that America's schools are failing to meet the basic needs of large numbers of young people and adults. These facts caused many national leaders to talk about the need for a new focus for education even before the label "Career Education" was used.

Nobody has yet stated the problem any better than the National Advisory Council on Vocational Education (NACVE), in its first Annual Report issued July 1969:

"Racial unrest, violence and the unemployment of youth have their roots in inadequate education. Each year the ranks of the school dropouts increase by three-quarters of a million young men and women. They enter the job market without the skills and attitudes employers require. They and the millions of others who are underemployed . . . are tragic evidence of the present inadequacy of our educational system.

"The failure of our schools to educate to the level of adequate employability nearly 25% of the young men and women who turn 18 each year is a waste of money, as well as of human resources. The nation supports a galaxy of remedial programs, some of which have cost as much as \$12,000 for every man or woman placed on a job. Those who remain unemployed may cost us \$4,000 or more per year in welfare support for themselves and their children, who will repeat the dreary, costly cycle.

"The costs, the blighted lives, the discontent, the violence, and the threat of revolution are needless. Schools can prepare young people to realize their potential. Each city in the country succeeds every year with some of its students, in even the most depressed parts of the city. Why is success not universal? Why is the failure rate so high? The reasons are attitude, program and money."

Disturbing Facts Support NACVE Statement

Disturbing facts support NACVE's eloquent statement of the problem:

- The United States has the highest youth unemployment rate of any nation in the world (the national unemployment rate triples in the 16-24 age group and then doubles again for minority-group youth).
- Every year, another 2.5 million young people enter the nation's pool of unemployed and underemployed as a result of leaving school, either as dropouts or general curriculum graduates, without a marketable skill.
- For the first time in our history, there is relatively high unemployment at the top end of the educational spectrum — the college graduates — as well as for the undereducated. The National Planning Assn. has predicted that surpluses of bachelor's degrees eventually will exist in every career field except health professions.
- At the same time unemployment statistics prevail, serious shortages of trained workers in a wide variety of career fields will exist. Furthermore, the U.S. Dept. of Labor (DOL) is projecting a labor force growth of more than 15 million new positions between 1970 and 1980 along with a need for nearly 30 million additional workers to replace those who die, retire or otherwise leave the labor force in the same 10-year period.
- Most of those 45 million jobs will be open only to the person who has the education and skill training, since DOL is also projecting that less than 5% of the jobs will be in unskilled

labor categories by 1975. Just as dramatic is DOL's prediction that less than 20% of the jobs in this country in 1980 will require college-degree-level preparation.

- Despite the fact that only slightly more than 20% of high school students ever go on to complete a college degree, and that for a majority of students the high school program represents the stepping-off point to the world of work, secondary school curricula and counseling activities continue to be heavily oriented toward college preparation.
- Although the unemployment rate for vocational education graduates aged 18-24 is said to be less than the unemployment rate for the nation as a whole, vocational education has not been made available to more than 25% of students.
- The general curriculum track, which enrolls about 25% of the nation's high school students, prepares its graduates neither for higher education nor for a job.

Renewal or Revolution?

These are the facts that have led many Americans to call for some sort of redirection, restructuring or revolution in the educational system. And "revolution" is the word which some are using.

In a keynote speech entitled "Renewal or Revolution?", Grant Venn told participants in a seminar on Career Education sponsored by the National Academy for School Executives (NASE): "I'm going to take the side of revolution.

"Our public school system has contributed so much more to the concept of equality and the development of the individual than most others that we've got to make it work," said Venn, professor of education at Georgia State U. "But I don't think we're going to do it with little renewal programs on the fringes — warts attached to the side of the elephant. We're going to have to do it by some basic, fundamental changes in the role of the school in society, and in a complete revolution in terms of some of our concepts — particularly those of us who were taught about the role of the schools in a time long gone by. Our greatest problem is our success, and we've developed, as a result of that, an intellectual snobbery in this country that will kill us if we don't whip it."

In *Career Education: Perspective and Promise*, Keith Goldhammer and Robert E. Taylor say it this way: "Good or bad, the American school system has persisted with all of its credits and debits, but it can no longer avoid confrontation with its basic issues. The most basic issue of all is the examination of the fundamental assumptions on which it is structured, to determine whether or not the schools are doing that which it is most important in this age for them to do.

"Fundamentally, education is presumed to be the transmission of knowledge. Skills may be taught if they are the fundamental skills needed for the transmission of knowledge. Beyond this, the teaching of skills is considered to be 'training' and unworthy of an educational program."

Identifying Career Education as a new basis for American education, Goldhammer and Taylor observe, "if career education is to deliver on its promise and potential, schools must become different kinds of institutions. . . . Perhaps schools need to be viewed as the planner and manager of the educational growth of individuals, drawing on and utilizing the full range of societal resources that are available. . . ."

They observe that adoption of this new concept can be "evolutionary" rather than revolutionary, by integrating it with the present curriculum and "resulting eventually in the restructuring of the educational program." However, they conclude with what ultimately sounds like revolution: "If Career Education as presently conceived cannot deliver what it promises, then our society faces two alternatives — either adapt Career Education so it can, or invent new institutions to replace the entire range of agencies which now constitute the American educational system."

A long-time friend of vocational education, former Congressman Roman Pucinski has said that "Americans are faced with the growing reality that public education may well be dying. . . . Nothing short of a new renaissance for learning is now in order, and it cannot come about unless we have the courage to change.

"The schools have one final opportunity to prove their worth to the nation — in perhaps the most challenging undertaking of their history — by dedicating themselves to preparation of students for the world of work. 'Themselves' does not refer to one lonely curriculum area or specialized group of teachers but to the total school program," Pucinski observed.

The Revolution: Already Here?

What many people are pointing out, in different words, is that a revolution has already taken place in American society and institutions, and that the educational institutions have not kept pace.

The world of work has changed dramatically, and in many areas the really dramatic statistic is the rapid acceleration of the rate of change itself. The following facts back up that statement:

- Nearly half of the workers in the United States in 1850 were employed in agriculture. Ninety years later — in 1940 — the number working in agriculture had dropped to about one-eighth. Now, only three decades later, the ratio has decreased to one worker in 22 employed in agriculture.
- In 1956, for the first time in our history, white collar workers (professional, managerial, clerical and sales jobs) accounted for a larger part of the nation's wage-earners than did blue collar workers (craftsmen, operatives and laborers). This development was preceded by a parallel one in the late 1940s, when the crossover point was reached in the comparison of service-producing workers versus goods-producing workers. The service-producing worker has predominated since then, and DOL projects rapid acceleration of this trend in the 1970s. DOL anticipates that service-producing employment will grow 26% by 1980 (from 47.3 million persons to 59.5 million) while goods-producing jobs will increase only 12% (from 26.9 million to 30 million).
- The role of women in the world of work has changed dramatically. In 1940, women made up only 25% of the civilian work force; today the figure is about 38%. Projections indicate a 22% increase in the number of female wage-earners in the next five years compared with a 9% increase in male workers. Most of these female workers will be married — about three of five are wives at present — and the trend will continue in that direction. DOL statistics indicate that 90% of all women in this country can expect to be gainfully employed at some time during their lifetime. This fact has enormous implications for educators.
- Because of accelerating technology, the num-

ber of jobs available to unskilled labor is shrinking rapidly. Likewise, the opportunities to enter a career field unskilled and learn on the job are diminishing. Grant Venn referred to this phenomenon as "the closed-down school system," noting that at one time the world of work was "a second school system" in which one could leave school after the eighth grade, get a job and work up to the company presidency. "You can't get into the personnel offices of most places today, even to sweep the floors, if you haven't graduated from high school," he observed.

- Again, because of accelerating technological change and because of people's mobility, today's work world requires almost continuous training and retraining to develop the new skills people want and need. Depending upon whose set of estimates one uses, projections are that today's worker can expect to change jobs from 7 to 10 or 12 times during his or her working life.

Another place where rapid change has occurred is the institution of the family. Significantly, much of the change that has and is occurring in the family institution interrelates with the changes in the world of work.

In the not-too-distant past, the family unit was in itself a major educational institution (in a sizeable number of societies, it still is). When the family was a self-contained productive unit, either in agricultural pursuits or the operation of a family business or industry, children learned a great deal from this institution.

In a thought-provoking talk at the 1972 annual meeting of the American Educational Research Assn. (AERA), James S. Coleman pointed out that "Classically, the family was the chief educational institution for the child, because he carried out most of his activities within it until he left it to form his own.

"The family has gone through two major transitions that sharply limit its occupational training of the young. The first of these occurred when the father went out to work in a shop or an office, and thus began to carry out his major productive activities away from home behind the closed doors of an organization. The second occurred when the mother went out to work or otherwise stopped carrying out her major productive activities in the home," Coleman pointed out. He quoted an economist's observation that now "the home closes down during the day."

As both parents have left the home to undertake their major day-to-day activities, other opportunities for informal learning have also disappeared for young people. Coleman noted that "friends are drawn from occupation; adult cocktail parties have replaced neighborhood or extended family gatherings in the social life of the husband and wife. Less and less does the husband's and wife's social life take place in a setting that includes children."

Education Versus Early Schooling

In perhaps the most thought-provoking observation of all, Coleman suggested to his AERA audience that the new look in American education may become clearer if everyone begins to make a distinction between "schooling" and "education."

"Previously, it was natural that schooling could have been confused with education — for schooling was that part of the education of the young which took place formally, and thus had to be planned for and consciously provided. But the larger part of education took place outside the school . . . learning about work, both the skills and the habits, learning how to function in society, learning how to be a father or mother, husband or wife, learning to take care of others and to take responsibility for others. Because these things were learned informally, through experience, or at least without formal organization, they could be disregarded, and 'education' could come to be identified with 'schooling.'

"But much of this other education evaporates as work takes place behind closed doors and as the family is reduced as a locus of important activities. 'Schooling,' meanwhile, continues to mean much the same thing that it did before, except extended

in time: the learning of intellectual skills," Coleman notes.

If the kind of revolution needed in education (as opposed to schooling) is to occur, it must be based on the recognition that schools cannot do it alone. Coleman believes the new educational system must involve a "breaking open of the economic institutions of society, from factories to hospitals, a removing of the insulation that separates them from the young, instead giving them an explicit role in the education of the young."

This kind of total reorganization of the educational system "recognizes fundamental structural changes in society — the drying up of family functions and the specialization of economic activities — and asks where in such an emerging social structure is the appropriate locus for the young if they are to have the opportunity for moving to adulthood. The answer is that the young belong where everyone else is, and where the action is: inside the economic institutions where the productive activities of society take place," Coleman concludes.

There are common threads running through all of these pleas for a total reorganization or revolution in American education: that education cannot be relevant to the young if it continues to make a distinction between "academic" and "vocational" education or continues to isolate young people from the real world of work, that the new kind of educational system needed can't be in the form of "warts on the side of the elephant," and that schools and other institutions in our society are going to have to become genuine partners in the educational process.

These same trends run through Career Education, in view of the concept's advocates.

Chapter 2



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What Is Career Education?

Spokesmen for Career Education have carefully — and consciously — avoided being pinned down to a precise definition. They maintain that it is still an emerging concept, and that specific definitions related to implementation are going to have to be developed at state and community levels. These decentralized definitions, they observe, will — and should — vary to about the same degree as different states and local communities do.

One definition being used is contained in a 1972 USOE publication, *Career Education: A Handbook for Implementation*, developed under a grant to the Maryland State Board of Education. The handbook defines Career Education as “the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value systems, and to implement these values in their lives in such a way that work becomes possible, meaningful and satisfying to each individual.”

While the search for definitions is a continuing one, certainly the *concept* has been spelled out in considerable detail. Its proponents have consistently identified several characteristics and components as essential to what they perceive Career Education to be:

- It must be provided for *all* students and involve the participation of *all* educators; it is a system designed to make available a “cradle to grave” continuum of educational opportunities to every individual. An important goal of the formal education piece of the global concept is that every student should leave the system — particularly at the high school level — with a saleable skill.
- It is a guidance-oriented, developmental approach to education which contributes to each person’s self-awareness and occupational awareness so that every individual is capable

of making decisions about career goals, and how to achieve them, at various stages in his or her life.

- It is an approach to education involving genuine partnerships in the educational task: between “academic” and “vocational” educators, school and home, schools and business, industry and organized labor, educational institutions and manpower training agencies; and among schools of all levels from kindergarten through university graduate degree programs.
- It involves greatly expanded options through which the individual can reach his or her educational goals, in terms of the variety of programs available, the locations where education takes place, and the time orientation of the learning situation.

Career Education: A Cradle to Grave Approach

The simplistic, overriding statement about Career Education is that it is involved in *all* education, and that it is a continuous lifetime process literally extending from cradle to grave.

Career Education: A Handbook for Implementation said the concept “is not to be conceived as a time segment of education such as elementary, secondary or postsecondary education, or as a separate subject matter such as vocational education or academic education. Yet it encompasses all of these and more. It is a basic part to all education.”

Three steps are identified as essential to the Career Education process, and the three-step process “is a continuing one which most individuals will experience more than once in their lives . . . whenever the individual is faced with choosing or changing his occupation.” The three steps identified are:



CAREER EDUCATION

CURRENT TRENDS in School Policies & Programs

How Does Career Education Work? Two Examples

Susie is in a third-grade class where all activities are related as closely as possible to the world of work. Ten parents (including Susie's mother, a legal secretary) have talked to her class about their jobs. Susie is part of a five-student group working on a report which grew out of their interest in a talk by an interstate truck driver. The district Career Resource Center arranged for her group to visit the truck terminal, and an instructional aide helped them videotape what they saw, including the firm's computerized business office where the programmer is a woman.

The students' presentation to their classmates will include an illustrated map to show where the driver went during the previous 60 days and what he hauled (Susie will do the illustrating); a simple analysis of the cost of transporting the goods; and a description of the firm's different kinds of workers, using the videotape to illustrate some of them. The class is also preparing a listing of what's available in the library about the trucking industry. Four other groups in Susie's class are working on similar presentations which grew out of the parents' talks (inhalation therapist, restaurant manager, electronics plant section foreman, county social worker). Susie and her classmates continue their daily work in language arts, social studies, arithmetic, science, art and music -- which the teacher relates to their career projects in every way possible.

Jim is a tenth grader in a comprehensive high school which has its curriculum organized into career clusters, each with an interdisciplinary team of teachers working cooperatively. As a result of a counselor-led junior-high program in which he explored five different career areas, Jim decided to concentrate on the construction cluster.

Jim's modular class schedule includes a required U.S. history course, a Spanish I elective, English (where his teacher individualizes assignments to relate closely to his interest in construction and architecture), and a daily three-hour Construction Cluster time block. Within this cluster, Jim is earning credits in science (the physics teacher has a unit based on stresses and strains in building materials), math (algebra, focused on surveying and mechanical drawing applications), and industrial arts (mechanical drawing, the first semester, based on his basic carpentry and masonry trades the second).

The school's Student Coordinator is arranging a summer project which will give Jim four hours a day of paid experience (and a graduation credit) as a construction helper. Twice a month, Jim will be working closely with a group of other students who have completed the summer program. The coordinator has learned that the local building industry will provide him with meaningful work in construction and will be ready to accept him as a qualified apprentice in the field of architecture.

1. Awareness of the values held by a work-oriented society.
2. Exploration and personal decision making which involves integrating work values and personal value systems.
3. Implementing work values into one's life via occupational preparation, job placement and job success.

Finally, the handbook observes that this process cannot be "assigned to any one part of the educational establishment but rather must involve all educators at all levels in all kinds of educational settings" and that "it is not a process that education, as part of the total society, can accomplish by itself."

Focusing on that part of Career Education which can be implemented in the curricula of educational institutions, educators are generally using a model based on five overlapping stages:

1. *Occupational awareness and self-awareness*, in the elementary school grades of K-4 or K-5, to expose students to the many kinds of jobs that exist, introduce basic concepts about the world of work and work values, and cause young people to begin to assess their individual capabilities and preferences. A USOE spokesman stated, "until the sixth grade, there would be no attempt to *train* students. All we are aiming at in these early years is developing an awareness of careers, a personal realization that each student will spend most of his or her life doing or being something — and that 'something' will be largely determined by work. . . . Also, we want to give the young a sense of the remarkable number of options that will be open to them, to inform them of the manifold ways by which adults in this society go about the business of living productively." Most of the proponents suggest that the way to do this is to scan the existing elementary curriculum for every opportunity to relate the three R's and elementary social studies to the world of work and self-awareness.

2. *Career orientation and exploration*, at approximately the upper elementary, middle school or junior high levels of grades 5-8, in which young people begin to see that the more than 23,000 existing kinds of jobs fall into broad occupational clusters (USOE has identified 15). Students are then given the opportunity for personal exploration of several of those clusters where they believe

their interests may lie. This orientation and exploration hopefully can involve some real contact with the world of work and hands-on opportunities, using both in-school simulation settings and out-of-school experiences.

3. *Career specialization and beginning job preparation*, at roughly grades 9-12, in which the student uses the self-knowledge and occupational knowledge he has acquired in the first two stages to move deeply into his tentative career cluster area. Ideally, the high school program is structured so that students are no longer tracked into something called "college prep" or "vocational" or "general" programs. Instead, all students participate in a unified program — a merger of the former academic and vocational curricula. At this stage a student should have the broadest possible number of options to choose from the career cluster of his choice. These options should be flexible enough that the student can change from one educational goal to another with little difficulty. A major goal for this level is that every student, upon leaving high school, will have an entry-level job skill whether or not he plans to continue into postsecondary education (USOE estimates only 30% of high school students now leave with a marketable skill). Another goal is that all high schools will provide complete placement services to help *every* student find either a job or the appropriate educational program for advanced career preparation.

4. *Advanced career preparation* above the high school level, either at a public or proprietary technical/vocational school, or a college or university granting degrees at the associate, baccalaureate or graduate levels, or through an apprenticeship program on the job. An important part of the concept is that this stage can take place at any chronological age, and that it might be preceded by a period of work — using the saleable skill acquired at the high school level — or might involve alternating periods of work and studies. Ideally, if one has found his real preference in a career cluster, this stage represents the opportunity to move up the career ladder to technical or professional level positions within the chosen cluster.

5. *Adult and continuing education*, offered in various educational settings, which meet every person's needs for additional basic education, further career skill development, or retraining for a new career field, throughout their lifetime. In view of the dramatic projections about the number of

times an individual is likely to change jobs during his lifetime, this fifth stage is considered an essential part of the total educational opportunity available.

Summarizing the end result of such an approach, a USOE spokesman noted that "curriculum is structured to assure that a student exiting from high school at any time will have either a readily marketable job skill or be capable of continuing his or her formal education at a postsecondary institution. . . . Note also there are no time or age limitations. Career Education makes available to every person a lifetime of exit and reentry possibilities into and out of the education system. The student is equipped occupationally, academically and emotionally to spin off from the system at whatever point he chooses — whether at age 16 as a craftsman apprentice, or age 30 as a surgeon, or age 60 as a newly trained practical nurse."

The Developmental Approach: Career Awareness for All Ages

"We have on our hands an entire generation of boys and girls who are rapidly becoming men and women — and who fail to understand what they are to do when the transition to adulthood is complete. Inculcating that understanding is what Career Education is all about," Marland said.

This is the nub of a second component of the Career Education concept — that the educational process must provide for continuous and systematic development of each individual's self-awareness and occupational awareness, thereby equipping him to make wise and satisfying career decisions at various points in his lifetime.

The need for putting the theories of career development into practice in the educational system of a postindustrial society is critical, in the judgment of many people.

Anthropologist James P. Spradley, in the USOE/NIE-sponsored publication *Essays on Career Education*, contrasts the kinds of educational systems available in non-industrial cultures with that of our society. He notes that the two areas of greatest variance relate to the "continuity factor" and the "choice factor."

"Continuity marks the educational process in many societies. In small non-Western communities the social sphere of adult and child is often the same; no great dichotomy exists. Children slowly learn the attitudes and competencies necessary for

adult roles and abrupt transitions seldom occur.

"In contrast, our own educational structure is marked by discontinuity between childhood and the world of work. There are two social spheres, one for children and another for adults . . . marked by such rigid spatial segregation that many children never spend as much as one day in the place where their parents work and do not even know about the work places of other adults," Spradley observes.

Regarding the choice factor, he points out that "societies marked by educational continuity also offer a limited number of occupational choices" and that both boys and girls know they will grow into the same occupational and social roles as their parents and the other adults from whom they have learned. Conversely, our society "presents the individual with a myriad of choices . . . none of us can even learn the full meaning of the skills involved in more than a few of our culture's occupational roles."

"Career Education is intended to be a cultural innovation of some magnitude. While it will change the content of education, the aim is even more to change the structure of our educational system. In particular, Career Education is designed to change the way our culture structures continuity and choice. If Career Education could be implemented instantaneously, the discontinuity between the worlds of childhood and adulthood would disappear and thousands of occupational choices would no longer be a mystery to our youth," Spradley concludes.

It is assumed that everyone in the school setting — all teachers at all levels, counselors, curriculum coordinators, administrators — must share the responsibility for infusing career development into the entire system for all young people.

"We must prepare people to choose," says William F. Pierce, USOE's deputy commissioner for Vocational and Adult Education (and the person charged with responsibility for coordinating USOE efforts in Career Education). "Young people must be prepared to make choices, and the extent to which these choices will turn out to be right or wrong depends upon how well they understand their own needs and desires. . . . The ultimate aim of Career Education is to see citizens choosing occupations because they know one kind of activity will give them more satisfaction than another. As you can see, there is a long jump to be made between the criteria of educational achievement we now work toward and the eventual goals of Career Education," Pierce observes.

Some Needed Marriages

If educators who are looking at adoption of Career Education are operating under the assumption that they are going to accomplish the feat by themselves, they are in for some frustrating experiences and rude shocks. Virtually all of the proponents of the concept envision it as something that will — for the first time in the history of American education — deeply involve the total community in the educational process. Only one of the four experimental Career Education models begun by USOE is a school-based model.

Some of the spokesmen use the words “partnerships” and “marriages” to describe what they have in mind. None of them is talking in terms of occasional cooperative ventures, such as a once-a-year “career night” at the local high school, but rather about permanent, continuous, mutually contributing educational relationships between the school and every other important segment of the community. One spokesman views Career Education as a more drastic movement — one that requires collaboration, not cooperation.

Former Secy. of Labor Willard Wirtz, in a national Career Education seminar held late in 1971, put it this way: “With respect to this relationship between education and employers, if it is to be effective it’s going to have to be institutionalized, continuing and participatory. No tokenism is going to get us any place. . . . Annual conferences in which you bring in tripartite panels — including employers — to discuss this matter may constitute satisfactory catharsis as far as your impulse toward working with industry is concerned, but it’s not going to work. It’s going to be a tough, procedural, institutionalized business — probably as tough as the development of collective bargaining.”

Wirtz went on to tell the assembled educators that “it’s going to have to mean the expenditure of a lot of effort and a lot of time, especially at the local level, to bring about this working relationship . . . and any feeling that you can get it by occasional conferences or by setting up advisory committees to come to your help when there’s a bond issue up or a piece of legislation you want passed, or any idea that Career Education can be made that by getting the names of local employers on advisory committees to the superintendent of schools is just so much nonsense.

“The one point I would emphasize most strongly is the essentiality of the establishment of administrative procedures of one kind or another

to take this out of the once-a-month, three-or-four-times-a-year conference . . . and move it onto a level where there is everyday working with each other — at least somebody from the educational establishment and somebody from the industrial establishment. That would seem to me almost a test of whether there is anything effective really going on . . . day to day on the implementation of this thing,” Wirtz concluded.

Different Views on Benefits/Problems

A genuine marriage between educators and the business-industry-labor community on the kind of daily continuing basis described by Wirtz can result in:

- Massive increases in the opportunities for junior and senior high school students to combine real work experiences with their formal education.
- Exchanges between educators and business-industry-labor personnel which give the educators new work experiences and give the students classroom exposure to people from the world at work.
- Establishment of career guidance centers to which all people in the community — youth and adults — can turn for accurate information and counseling about the available careers and how to achieve them.
- A truly coordinated approach to job placement for young people and adults.

Wirtz’ analogy to collective bargaining is probably a good one. Both the educational establishment and the business-industry-labor community are going to have to make genuine commitments to the marriage — in personnel, time, money, patience and good faith with one another.

Ten tough questions were posed by Kenneth B. Hoyt to conferees at a National Conference on Career Education in February 1973 sponsored by the U.S. Chamber of Commerce. (See p. 65) The questions provide clues about the major problems to be faced in effecting a partnership between schools, business, labor and industry. Hoyt, of the U. of Maryland, asked: What is the *desirability*, *practical probability* and *practical limitations* of:

- (1) The concept of exchange programs between

business-industry-labor personnel and school personnel. (2) The concept of field trips for students. (3) The concept of work experience for all high school students. (4) The concept of school-industry job placement programs. (5) The concept of establishing occupational resource persons from the business-industry-labor community. (6) The concept of the year-round school running 16 hours a day, 6 days a week, and staffed partly by business-labor-industrial personnel. (7) The concept of using retired workers as resource persons in schools to acquaint students with the world of work. (8) The concept that work should become more personally satisfying to the individual worker. (9) The concept that every student leaving school should be equipped with a marketable job skill. (10) The concept that every student leaving school should, if he desires, be able to find work.

Four major contributions that business and industry can make to education were suggested by Douglas M. Knight, RCA's vice president for education systems, at a 1972 Career Education conference sponsored by Educational Testing Service.

- Serving as a host to students who need "direct exposure to the kinds of work we do."
- The actual operation of schools, as RCA does with its institutes.

- The development of career education program components for use in schools.
- Providing "continuing education not only for its own employees but for many others" via programs that extend their employees beyond preparation for their immediate jobs, and programs that make industry's "special fields of competence available to interested people who work elsewhere."

Speaking of the partner relationship, Knight warned: "Clearly, business should not look on students as a cheap source of labor but equally, schools and students *must* not look on business as a cheap or easy source for education. There must be an active partnership among the three, with a blunt recognition that the student in true Career Education must be the most active of the partners. We can show him how to relate his study and his work, and both school and employer have a duty to do so in the closest kind of partnership; but if the student remains passive, the new effort at Career Education will be no better than the old remote discussions of job opportunity that used to pass as Career Education."



Individual Options: On the Rise

The 1972 annual report of Educational Testing Service (ETS), entitled "Individuals and Their Options," observes: "There probably has been more concerted movement toward nontraditional higher education in the past three years than in the previous thirty" and notes that "many colleges and universities for the first time are vigorously facilitating the awarding of credit to regular undergraduates who can demonstrate college-level achievement, however attained."

Examples cited included the U. of Texas awarding credit to thousands of undergraduates via the College-Level Examination Program, implementation of an examination-based external degree program by the Regents of the U. of the State of New York, development of statewide external degree programs by Florida International U., and experimental use of The Open University of Great Britain's materials by Rutgers, U. of Houston and U. of Maryland.

ETS also reported that the use of the College-Level Program for placement and credit evaluation jumped from 6,500 individuals in 1970-71 to 21,400 in 1971-72, with a corresponding rise from 61 to 350 in the number of CLEP testing centers.

Partnership Within Education

Not all of the needed marriages involve non-educators. Many of them are long-overdue partnerships within the educational establishment.

The most important of these "internal" marriages is between "academic" and "vocational" educators at all levels, postsecondary as well as K-12, to create teams which can cooperatively develop and teach a unified curriculum blending language arts, math, science, fine arts and foreign languages with occupational skill development. Vocational teachers, who have traditionally confined their activities to secondary and postsecondary levels, will have to enter into partnerships with elementary teachers. Academic and industrial arts faculties in the junior high will need to work together to develop a program that provides occupational cluster concept experiences for all students — both girls and boys.

Counselors will have to develop new kinds of relationships with teachers, and cooperatively offer new kinds of services to students, if the goal of equal emphasis on job placement and advanced educational placement for all young people is to be met. Marland suggested that counselors assume "that central role of orchestrating the many parts of education that must flow together if career education is to become a reality."

Public school and postsecondary institutions still have some bridge-building to do, too. If Career Education is implemented in the public schools, the colleges and universities must modify some of the admissions requirements which have virtually forced high schools to focus on "college prep" programs. University departments which have refused to allow their facilities to be used for sub-baccalaureate paraprofessional and technician training need to examine potential relationships with other education institutions to see if, together, they can use such facilities to close some of the developmental career ladder opportunity gaps that exist in their communities. Colleges of education must redesign much of what they are doing if they are to prepare future professionals for Career Education school system staffs and provide inservice opportunities for those already in the schools. This redesigning surely ought to involve the active participation of people from the school systems.

Expanding the Options

In many ways, the fourth major piece of the

Career Education concept — greatly expanded educational options for each individual — is the most revolutionary. It is going to involve some dramatic and complete breaks with deeply ingrained traditions and procedures, including expansions into wholly new kinds of educational programs for young people and adults, new approaches to the physical locations where education takes place and who is qualified to teach something, and abandonment of traditional time frameworks.

But, to state it more positively, the Career Education concept can be the catalyst for consolidating many of the innovations which are already taking place in America's schools — individually prescribed instruction, team teaching, modular scheduling, open schools, alternative schools, the year-round school, use of paraprofessionals, behavioral objectives for student achievement evaluation, and open-entry/open-exit programs.

What's Needed

If a key element of Career Education is to design an educational system providing every man and woman the opportunity to prepare for his or her chosen career field, the range of programs available must expand dramatically.

Rep. Albert Quie, R-Minn., observed at the Career Education Conference sponsored by the Chamber of Commerce of the United States: "There is no point in saying that we are going to give career orientation and to counsel children on career choices if we do not have the capacity to prepare people for the full range — or something approximating the full range — of possible career choices."

Nobody is suggesting that every high school in the nation can literally gear up to offer preparation for all the occupations listed in the *Dictionary of Occupational Titles*. Instead, the career development component of Career Education does imply that students who have had the opportunity to explore all 15 career clusters in junior high should have the opportunity to begin specialization in high school in any one of the clusters. For most high schools in our nation, this is going to mean an enormous expansion of the vocational education part of Career Education.

Clearly, this kind of expansion cannot be accomplished in the existing school facilities or within the traditional school day and school year. What the proponents are suggesting is a combination that

involves broadening the comprehensiveness of secondary schools, constructing career centers or area vocational schools which can provide specialized programs to supplement the offerings of individual schools on a regional basis, developing increased numbers of cooperative education and work-study locations in the community at large, providing for early entry into postsecondary institutions for some individuals, and utilizing educational facilities more fully by making them available day and night, year-round.

Breaks with Tradition Will Bring Change

This opening up of where and when education takes place will, in turn, have far-reaching implications for other traditional ways of operating schools. The Carnegie unit of credit, with its time orientation of a 55-minute period daily during a 180-day school year, will no longer have much meaning. Neither will traditional A-B-C-D-F letter grading systems, nor graduation requirements that give a "full credit" for academic subjects, a "half credit" for vocational studies, and no credit at all for learning which occurs on a job or in voluntary community service activities.

Many educators observe that it has not, for a long time, made much sense to restrict education to a calendar which starts in September and ends in May or June (and which, incidentally, results in millions of young people being literally dumped on the labor market during one two-week period every spring).

The dimensions of the breaks with tradition required for expansion of educational options for every individual are outlined by Hoyt in the *NASSP Bulletin*, prefaced by the observation that "Optimism can be found in the fact that, without exception, the seeds for the basic kinds of change needed are deeply rooted in many years of educational research and innovation."

The major changes demanded for successful

implementation of Career Education, Hoyt suggests, are the following:

- The creation of a true open-entry/open-exit system of education in which the term "school dropout" becomes obsolete.
- The installation of performance evaluation as a primary basis for evaluating accomplishment.
- The creation of the 12-month school year, the 6-day school week and the 18-hour school day in which both youth and adults can learn together in courses that run for varying lengths of time under some form of flexible scheduling.
- An increased emphasis on a project-activity oriented approach to instruction that will allow greater individualization of instruction and demand relatively small class sizes.
- The presence of 12-month contracts for all professional educators that call for part of the time to be spent in the world of work outside of education and/or in other kinds of learning activities.
- The creation of comprehensive career guidance, counseling, placement and follow-up programs that serve both in-school and out-of-school youth and adults.
- The creation of methods for granting educational credit to students for tasks performed outside the walls of the school and under supervision of persons who do not possess standard teaching certificates.

It is in this individualizing of options area of Career Education, with its call for so many breaks with tradition, that much of the controversy about the concept has developed.



Career Education: Pro and Con

The concept of Career Education has received strong support, and in many cases open endorsement, from a variety of individuals and organizations. Many of these supportive statements came in the wake of Marland's whirlwind series of speeches on the subject in 1971 and 1972. Some originated in the work of task forces created by organizations to recommend what their position ought to be.

Publicly endorsing or supporting Career Education are: National Assn. of State Directors of Vocational Education (NASDVE), Council of Chief State School Officers (CCSSO), American Vocational Assn. (AVA), National Advisory Council on Vocational Education (NACVE), Education Commission of the States (ECS), National Assn. of Secondary School Principals (NASSP), the 1971 White House Conference on Youth, and the Democratic Party's 1972 national convention plank on education.

Strong support or interest in the concept has been evidenced by the Educational Testing Service, Chamber of Commerce of the United States, National Assn. of Manufacturers, and American Assn. of School Administrators' National Academy for School Executives (AASA/NASE) — all of whom have conducted national conferences and seminars, and/or produced publications, on the subject.

Words of Support: NASDVE

The National Assn. of State Directors of Vocational Education adopted a position paper on Career Education in September 1971 which said, in part, that the organization believes "Career Education, constituting a central theme in the total universe of public education, should be assigned high priority throughout the nation — in every state — and in every public educational agency. It should become a major objective of public education, with its achievement measured by employ-

ability in occupations, both gainful and useful, that are a reasonable match of both the talents and the ambitions of every citizen."

For its part, NASDVE pledged "vigorous support of Career Education as an emerging, essential concept that will provide a viable system of learning experiences which will assist all youth to acquire useful information about the occupational structure of the economy, the alternatives of career choice, the obligations of involvement in the total work force, the intelligent determination of personal capabilities and aspirations, the requisites for all occupations, and opportunities to prepare for gainful and useful employment."

CCSSO

In a 1971 resolution, the Council of Chief State School Officers stated its belief that "preparation for careers as well as good citizenship should be a basic policy of education" and pledged to "develop educational programs for all youth to help assure equal opportunity for preparation for careers." The resolution also supported "a continuing program of training, retraining, advancement and promotion... for out-of-school youth and adults."

AVA

The powerful American Vocational Assn. pledged support at its annual convention in December 1971, in a resolution based on the recommendations of a 100-member task force. Among its recommendations were: "AVA should take the leadership role as a catalyst by sponsoring a national forum with broad representation... to develop guidelines, establish legislative goals and define the role of various programs in relationship to career education."

"AVA should take the leadership in identifying and promoting legislation which will authorize categorical funding for all segments of career education, including vocational education." It also recommended the association assume responsibility for communication about the concept.

ECS

A major task force report for the Education Commission of the States began with the observation that "if the ideal of education commensurate with the interests, needs and abilities of American citizens is to be approximated, and if that education is to have relevance to the skills, awareness and concerns essential to a free, progressive and technically competent society in this last quarter of the 20th century, it is essential that priorities be realigned and that we return to the concept of education as career preparation, of vocation in the classical sense of what a person does with his life, his 'calling.'"

The ECS task force went on to say that "each state has a clear responsibility it cannot deny to develop a comprehensive plan of education, serving all its citizens — the professional, the college bound arts and science major, the adult, the business and teaching major, but equally the technical, vocational and career-oriented student in programs fitted to his special interests and needs.

"To this end," the ECS report said, "it is obviously the obligation of each state to determine what percentage of the educational budget should be directed toward occupationally focused programs in a career education system and what should be allocated for all types of institutions serving the state's total career education needs."

White House Conference

At the 1971 White House Conference on Youth, the task force on economy and employment observed that the present educational system "has failed . . . in relation to preparing students to move into work." It recommended, as remedies, elimination of tracking systems and the general curriculum, expanded counseling with greater emphasis on career options and planning, more work-study and cooperative programs, year-round operation of schools and free adult basic education.

1972 Democratic Convention

The Democratic Party national plank, under the subhead "Career Education," observed that "academic accomplishment is not the only way to financial success, job satisfaction or rewarding life in America." It called for equal funding priority for vocational-technical education as that "previously given academic education," strengthened career counseling programs, and "a lifetime system of continuing education to enhance career mobility, both vertically and laterally, so that the career choice made at 18 or 20 years of age does not have to be the only or the final choice."

Proponents Cite Payoffs

A lengthy list of "payoffs" for the educational system, community and students is cited by the supporters of Career Education, if the concept is implemented in its broadest sense. Among the advantages seen by the proponents are:

Education at all levels will be more relevant to the students, with the result that their motivation will improve and the learning process itself will be enhanced. They point out that school leavers consistently give one of two reasons for dropping out — either "lack of interest in school" or "to get a job." Several authorities have stated baldly that relating the total curriculum to career fields will result in improved learning of even the basic skill subjects such as reading, writing and math.

USOE's William Pierce, talking about what has already been done, says "courses are being organized in terms of broad career clusters. Arithmetic is being presented not as a puzzle to be solved for solving's sake, but as a handy skill of direct usefulness now and later on in just about any calling a youngster can choose. English is being taught not as an abstract intellectual exercise to be studied for no better reason than because it is a hurdle that must be surmounted, but as a practical tool of communication with rewards no less for the clerical worker or carpenter than for the artist or architect. There is no competent teacher anywhere, it seems to me, who could not reexamine and redefine his or her program toward two ends:

- That it deal only with matters that the youngsters will really need as functioning members of the society;
- That it be presented in a manner that students

can see as being relevant and useful, and thus interesting. Given that kind of approach, students are not going to be asking why they have to study a particular subject. They will want to study it because it relates importantly to their interests and ambitions."

The broadened options in Career Education will provide programs individualized enough to meet each person's particular educational desires and needs throughout his lifetime. Perhaps most important, individualizing through expanded options will offer much greater opportunity for each student to taste successes, rather than the failure so many now experience when they are judged almost exclusively on their "academic" abilities.

The career guidance and development component, with its continuous attention to self-awareness and occupational awareness, will give each student a better basis for making decisions about particular areas of interest. The result of this improved decision-making capability should be that each individual is more likely to find a career field that is personally satisfying and rewarding. Making work "possible, meaningful, and satisfying to each individual" is seen by some Career Education spokesmen as the largest single most important reason why schools must be willing to activate the concept of Career Education if they are to meet the demands of society.

A tremendous economic impact could be attained through one of the major Career Education goals — that of providing as many young people as desire it a marketable skill before he or she leaves secondary school. Achievement of this goal would, in time, greatly decrease the need for expensive remedial adult manpower training programs and would allow many young people to become productive at an earlier age than is now the case.

Focusing the total educational program toward career preparation, and the marriage of "academic" and "vocational" education, would give all educators a common goal. Further, this unified goal would make possible a system of accountability which many people are currently demanding of educators and educational institutions.

Breaking down some of the traditional time and space orientations will make possible full use of the community's educational resources. By operating educational facilities for longer periods of time each day and for more days each year and by providing educational programs in nonschool community facilities, the capital expenditures and operating expenditures for Career Education will

be reduced or offset. A side benefit for educators is increased opportunity for full-year employment, rather than the 182 days a year specified in many teacher contracts.

The increased facility utilization, involvement of the total community in the educational process and better access to occupational skill development for all citizens may restore public confidence in American education. Public confidence and accountability are essential when it comes time to ask citizens for increased financial support for their educational programs and institutions.

Why the Opposition?

Why, in view of the many "payoffs" in Career Education for so many people, is there opposition to the concept? A simplistic answer is that most people tend to resist change of any kind, and Career Education certainly proposes some dramatic changes from present ways of doing things. Another is that the broad concept is subject to a wide variety of definitions, and it is some of these definitions that are the targets of criticism. (Many people — proponents and critics alike — are equating "career education" with "vocational education." The Career Education concept, in practice, would incorporate what has traditionally been called Vocational Education.) Many are skeptical that the idealistic concept can ever be implemented into workaday practice, and official criticism of the USOE "models" may have reinforced this skepticism.

Most of the opposition and concern expressed to date can be grouped under these general statements:

- The concept's focus on occupational awareness and preparation for all is anti-intellectual and will result in a "watering-down" of academic excellence.
- The focus of all education toward a career orientation is antihumanistic and subverts development of the individual to the mechanistic aims of business and industry.
- There is a strong possibility that Career Education can be used to "channel" people into narrow occupational tracks, thus continuing to deny racial minorities and/or women full access to all career fields at all levels.

- There are serious flaws in the USOE Career Education models.
- Career Education is going to be costly, and thus far the trend has been to "steal" its financial resources from already underfunded vocational or other categorical aid programs.

The Critics' View

The Council for Basic Education (CBE) was one of the early critics. The CBE *Bulletin* of December 1971 observed that "there is some doubt as to what the phrase means in practical terms but by advocating Career Education for all students, from first grade through high school, Marland evidently wants to reemphasize the importance of what used to go by the more plebeian name of vocational education.

"We take no absolutist stand about vocational education, for or against," the *Bulletin* went on, but added that "there are a few preliminary questions that need to be raised before we go heavily vocational in the schools." These questions, according to CBE, include: Why is it necessary to emphasize career education in the elementary grades? What are the job training opportunities that already exist outside the schools? Who will take vocational education?

"We cannot agree that the traditional subjects are 'irrelevant' for anybody. Imaginatively taught by capable teachers, these subjects are useful to everyone, whether he intends to be a scientist, actor, butcher or salesman," CBE concluded.

In October 1972, CBE sponsored a "conversation" between Marland and James D. Koerner, former CBE executive director and currently a program officer of the Alfred P. Sloan Foundation. Proceedings of the session, which also involved CBE staff and board members, were published under the title, *What Is Career Education?*

Koerner began by noting that the meaning of the term "remains very obscure." He quoted several of the USOE definitions, observing that "if we are to take definitions like that at face value . . . no one of CBE persuasion could accept such a blinkered description of the purpose of education — a definition that is so uncompromisingly economic, so unabashedly narrow in conception, so relentlessly tied to the gross national product, and so anti-intellectual. What a commentary it would be on universal education if . . . the nation were to accept the proposition that the

greatest aim of its schools, their highest goal and ultimate purpose, was not to lead people toward a worthy and examined life, not to provide them with some grasp of the long cultural, esthetic, and intellectual tradition of which they are a part — but that the highest goal is just to get people into jobs and to condition them to a life in the marketplace. So . . . my first problem with it is what I can only call the meanness of its vision."

Another major concern detailed by Koerner is the "totality" of the concept, with its inclusion of all students at all levels. He also raised several "serious practical problems" for consideration, including how the schools propose to achieve a respect for "the dignity of work," the unreliability of manpower predictions, the specifics of how Career Education is going to be approached in the classroom and the cost of implementing the concept.

Arguing for "some kind of reasonable combination of academic and vocational education, particularly in the secondary school," and agreeing with Marland that the general curriculum "ought to be scrapped everywhere for the abomination that it has always been," Koerner concluded that "unless the more militant spokesmen . . . for Career Education accept a scheme of less grandeur, or the advocates of basic education are ready to throw in the towel, the two groups are going to have to continue in fundamental disagreement. That disagreement is based on the philosophy of education implicit in Career Education, a philosophy that is too narrow and constricting, on a system or proposal that is too indiscriminate in its sweep, and that is confronted with all of the practical problems of manpower projection, forced choice of occupation too early for many students, the questions of pedagogical technique that have yet to be resolved, the question of cost, and. . ."

Arguments that Career Education is antihumanistic have been presented by a sizeable number of people. Exemplifying these criticisms is an article in the February 1973 *Phi Delta Kappan* coauthored by two education professors, Robert J. Nash of Boston U. and Russell M. Agne of the U. of Connecticut.

While noting that "there is much that is positive in the career education concept," Nash and Agne observe that "the heart of the career education movement is an ideological commitment to a corporate social order.

"What is disturbing about all this is that American educators are being urged to accept, as an unquestioned social ideal, a type of corporate

reality principle emphasizing high productivity; spiraling wages; automation; increasing economic growth; accelerating rates of social change; systematic administration; complex, large-scale organizations; and a technical approach to the resolution of human problems," they argue. Because of this commitment to a corporate reality principle, they continue, "many career education programs are being constructed without the possibility of students being exposed to alternative societal models . . . (such as) a society where a person's worth is not dependent on his being a productive worker who contributes throughout a lifetime to an expanding economy."

Nash and Agne conclude that "the single greatest failure of Career Education programs would be to push people into the corporate (industrial-technological) growth sector, with its status and financial attractions, while underplaying the value of careers in the human services."

The two professors also attack "a theory of learning based on interrelated fallacies" which they say they detect in much of the Career Education literature. They identify the fallacies as specialism, sequentialism, fundamentalism and credentialism.

Regarding "specialism," they observe that "educators sell their souls for a view of life superficially utilitarian" and they recommend that career educators "construct programs more sensitive to young people's needs to absorb and integrate all kinds of knowledge (liberal, spiritual, instrumental, sexual, expressive, political, scientific) . . . (with) far less emphasis on restrictive vocational goals and specialized work skills."

Their concern with "sequentialism" is that "rigid sequencing, in conjunction with performance objectives, can be a devastating learning block for some students" and risks "swamping the special tempo and style of each person's unique rhythm for learning." The fallacy of "fundamentalism" which assumes a body of occupational knowledge to be fundamental for all students must be offset by "a curriculum that helps students to think about issues and problems, aids them in clarifying their value confusions, and urges them to consider and act upon workable alternatives to the corporate system as it is." Finally, they caution that Career Education's stated objective of basing entrance to a career on a person's performance rather than on formal credentials may lead to "converting a performance-based model of education to one that is exactly the opposite — namely, the selection, training and certifying of workers for the corporate state."

Minority Concerns

A fear that Career Education represents just one more means to deny minorities full access to educational opportunity has been expressed by many spokesmen. As Harold Howe II, vice president of the Ford Foundation, put it in an *NASSP Bulletin* article, "their view is 'try it on Whitey — if it works, we'll be glad to go along — but in the meantime we'd like for our children the kind of education that allowed the whites to beat us out for jobs and other opportunities.'"

Sally Barker Spitzer, an education analyst for the National Urban League's Educational Policy Information Center, warns that the concept "may be used as a weapon of oppression against the community of non-whites in this country, trapping them into an occupational field of servitude to a privileged professional class."

Rep. Shirley Chisholm (D-N.Y.), in a speech before the 1973 National Conference on Career Education, expressed the opinion that Career Education is being designed for the children of the middle class and for working parents. She noted, for example, that one of the suggested activities for elementary students is to interview their parents about their careers. She questioned the relevance of such an assignment in a home where the father is unemployed, the mother is on welfare, the sister is a streetwalker and the brother is a junkie.

At the same conference, William Brazziel, U. of Connecticut education professor, raised the possibility of a kind of career counseling where a white counselor directs "a poor, bright, black 13-year-old into a 'career' of window washing" and tries "to make him satisfied with the lot assigned him."

"The need for change would be agreed to by all minority groups. However, the question arises: Is Career Education the direction that will lead to educational and economic parity with the majority? Minorities have looked with anticipation on many new concepts from the federal government which were to be the saviors of education. None of these programs seems to have lived up to its billing, and . . . cynicism regarding further experiments is to be expected. This mistrust has led many minorities to feel that the only way to acquire quality education is to totally control the system in their communities," observe Lawrence Davenport and Reginald Petty of NACVE in a publication entitled *Minorities and Career Education*.

Career Education also has gotten off to a bad start with some women's groups. A USOE film produced at a cost of \$60,000, which was to be a

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major part of the national dissemination effort for the concept, was withdrawn from further use after women's groups point out that it showed women in stereotyped job situations (and ethnic minorities criticized it as "racist"). The film was scanned by Rep. Edith Green, D-Ore., and her Ad Hoc Subcommittee on Discrimination Against Women. Their tally indicated scenes featuring men outnumbered those featuring women about 90 to 50, and that the women were usually depicted in "traditional" female jobs.

Numerous spokesmen have stated that the problem of occupational role stereotyping on the basis of sex is a major one to which Career Education — and especially the Career development and counseling components — must address itself.

Howe, at a national Career Education conference, said, "I have seen precious little in the literature about career education on this thorny problem. But, if the schools mean business about it, they will have to start in elementary school to change the image of women's roles as traditionally conceived in American society. . . . Career roles of women are in a state of flux. They want to be astronauts and airline pilots, business executives and crane operators; they want equal representation in management, equality of pay and a different role in the family. Career educators in schools will have to decide how to deal with these new aspirations."

Edna Mitchell, an education professor at Smith College, observes that Career Education thus far has not "recognized the seriousness of the vocational miseducation of girls." The programs, she notes, focus largely on the idea of work itself "without indicating an awareness that sexist prejudices still pervade the entire curriculum and are

subtly reflected in the attitudes of school personnel. . . . From a feminist point of view, effective Career Education for girls would have to be remedial even in the elementary school. Attitudes limiting women's career opportunities are rooted deep in early childhood." The Smith College professor notes that an effective change in future vocational roles for women must be directed toward elementary teachers and parents of preschool children as well as high school counselors and teachers.

Whether the minority concerns about Career Education are based on ethnic or sexual grounds, a common plea of the spokesmen (and women) is for active advisory input to the concept before its implementation. Rep. Chisholm has urged minorities to band together for such input; and Ms. Spitzer calls for "monitoring" on the part of the black community so that "minority students will not be channeled into low-paying service jobs."

Davenport, who is vice president for development at Tuskegee Institute, says "blacks should watch closely the development and implementation of Career Education to see that their interests are fully covered. If Career Education works, it can be a great boon to the black community, but it will also bring other issues to the fore. If large numbers of black students suddenly emerge from our schools qualified as technicians and paraprofessionals in various fields, the whole issue of job discrimination finally will have to be dealt with head on. The entire issue of apprenticeship and labor union membership will also become more crucial. If our schools start turning out qualified journeymen in the trade fields, perhaps we should demand that high school graduation carry with it automatic entry into the trade unions."

Maryland Modifies Graduation Requirements



Maryland has amended its regulation requiring four years of full-time attendance for high school graduation so that (with the approval of the local superintendent) a student may pursue alternative programs the fourth year — early admission to a postsecondary school, work-study, apprenticeship training — or arrange for combined school attendance and alternative experiences even earlier. An advisory committee to State Supt. James Sensenbaugh has proposed further modifications in the graduation requirements, including credit for summer and evening classes, correspondence courses and work experience, or by examination.

The Unions Speak

The unions have had representatives in opposition to Career Education, too.

John A. Sessions, assistant director of the AFL-CIO Dept. of Education, says "labor views the present emphasis upon career education with mixed feelings."

The employer-based model developed by USOE is another sore point. "USOE is clearly saying that employers will operate the program and that other elements in the community including both schools and unions will be invited only to assist and support it. Quite simply, no union anywhere is going to accept that kind of an arrangement," Sessions says.

Finally, there is the question of arrangements under which young people can obtain work experience as a part of their education. Sessions points out that "all too often discussions of Career Education quickly get around to the matter of what might be done to relax the minimum wage laws and child labor laws.

"If career education is to succeed, it will need to succeed on the basis of maintaining the basic standards of wages and hours and working conditions which have been established over the years," he says. "Organized labor wholeheartedly supports job-related education, but labor will not permit the erosion of the negotiated wage structure, nor will labor permit violations of the child labor laws in the name of education."

Gus Tyler, assistant president of the International Ladies' Garment Workers Union and a member of the "panel of critics" assembled by USOE, has also expressed fears about both the implementation and funding of the concept.

Emphasizing that he is speaking as a parent and "a human being concerned with man's fate on earth" as well as a trade unionist, Tyler observed, "Career Education could become anything. It could be the reintegration of American education; but it could also be the denigration of all education — a high sounding phrase that denies needed funds to both vocational and academic education in the name of a higher purpose and then denies the necessary funds to the higher purpose on the grounds that this merger, like all mergers, should pay off in dollars and cents. . . .

"As a nonperfectionist," Tyler said, "I simply assume that no matter how good the idea and excellent the implementation, there will be some evil spirits around who will put a curse on the newborn creature. . . . My chief fear is that what-

ever money is allocated will be part of a general revenue grant to states, to be used as each state thinks best. In such a money scramble — without reasonably defined and fairly tight guidelines — we will find career education becomes a means for 50 governors and state legislatures to promote their own careers."

The employer-based model also came in for some sharp words from Tyler. At a Career Education conference sponsored by Educational Testing Service, he said "I strongly propose that one of the four doors to career education . . . be sealed off as a security measure against subversion of the system. I refer to the suggestion that career education might be conducted under the aegis of a business consortium. I know these gentlemen well, and the better I know them the more I find them prisoner of an impersonal passion, the need to maximize their profits. . . . While such a business-minded consortium might feel compelled to include liberal and humanistic courses in a curriculum, I doubt both the commitment and competence of the money-minded entrepreneur to do either very well."

The Money Problem

The issue of funds for implementing the concept has caused some alienation toward Career Education by even those who support it wholeheartedly in principle. Both NACVE and AVA have tempered some of their earlier enthusiasm because they see categorical vocational education dollars being channeled into support of Career Education.

A warning that this might happen was issued early in the USOE push for the concept by Arthur L. Hardwick, at that time associate commissioner of USOE's Bureau of Adult, Vocational and Technical Education. Hardwick, who was eased out of his position within days after his criticism of the new approach, opposed the blending of academic and vocational education on the grounds that de-categorizing "voc ed" funds would kill vocational education in a few years.

Lawrence Davenport, speaking at the 1972 AVA convention, cautioned the vocational educators of the danger that "a great deal of money will be poured into development of career education — and much of that money is vocational education money — while vocational education as such receives little, if any, increases." Furthermore, he said, if vocational education is not developed as a strong component of it, Career Education "stands

the risk of becoming another watered-down general education program."

The same observation had been made earlier in the year in an open letter to Marland by the 1972 AVA president, T. Carl Brown. He cited the fact that the fiscal 1973 budget was "relying heavily on the Vocational Education Amendments of 1968 for authority to appropriate federal funds for career education." He added: "We believe that vocational education will need to be greatly expanded as Career Education is implemented."

Pierce was also a speaker at the 1972 AVA convention, and he attempted to allay some of the vocational educators' fears. While admitting that the financial burden of Career Education having fallen on vocational education is "partially accurate," Pierce contended "there is every reason to believe that the situation will get better in the near future."

"During fiscal 1972, USOE committed \$114 million to career education, of which \$83.5 million came from vocational and adult education," Pierce said. "Assuming a fiscal 1973 budget at least equal to the President's recommended spending level," Pierce said \$168.9 million would be allotted to Career Education, of which \$85 million would come from vocational education. That means moving from 74% of the total expenditure in career education being borne by vocational education discretionary funds to 51% in only one year," Pierce said.

USOE Rebuttals

The criticisms have been heard, judging from the responses made by USOE officials.

In a speech before an NASSP conference on American youth late in 1972, Marland commented that "while the general reaction to career education has been favorable... there have been dissenters...."

As to the "anti-intellectual" criticism, Marland pointed out that "among the 15 job clusters that have been identified for career education development is one encompassing fine arts and humanities, a cluster that includes poet, novelist, musician, and painter. We have no intention of turning any budding Langston Hughes into a machinist, but then neither do we intend to deny any machinist an appreciation of Langston Hughes' verse. Indeed, we think they should appreciate each other — and in that mutual understanding begin to build a new universe of respect in which all talents, all skills

and all kinds of intellectual preparation and training are understood for the important places they individually hold in our complex and interdependent society. That is the heart of the career education idea, which some of our critics fail to see."

Regarding the antihumanism charge, Marland responded before the National Council of Teachers of English: "Career Education aims at fulfilling some undeniably pragmatic goals, partially definable in terms of Gross National Product, taxes paid, employment increases and welfare payments no longer needed. But it also probes some deeply human concerns, and if the humanities can stand passively by while so many human beings hurt — while so many human beings know *how* to, but have forgotten *why* to — then I must ask what humanities are for. We need humanists to help us elaborate and refine this concept of career education."

Speaking before the American Personnel and Guidance Assn. 1973 national convention, Marland took note that minorities "tend to be particularly cynical about Career Education" and fear that it "may be merely a fancy new name for a pernicious old practice — training poor people for the cheap labor market, counseling blacks and browns to continue in the low-skilled work so stereotyped by their fathers' labors."

"Career Education has no such intent," he stated flatly, adding that the whole point of the concept is "the opening of new doors, not the closing."

As evidence of a conscious strategy of give-and-take dialogue between proponents and critics, USOE early in 1972 commissioned a panel of experts from a wide variety of disciplines and asked each to react candidly to the Career Education concept. The results of these reactions appear as a book entitled *Essays on Career Education*, published in May 1973 by the Northwest Regional Educational Laboratory under contracts with both USOE and NIE.

In the foreword of the book, Marland pointed out that he had declined "to lay out a concrete federal definition of Career Education."

And in a statement that indicates the pro-and-con dialogue is going to continue for a long time, he concluded that "if the notion has merit, it must be defined within general parameters jointly developed by the teachers, counselors, board of education members, college faculties, superintendents and deans, and the constituencies of parents and students whom we serve."



The Career Education Models

While federal officials have consistently stressed that many of the specifics of Career Education will have to be evolved at state and local levels, USOE has nevertheless allocated millions of dollars to research and development efforts aimed at producing some tested Career Education techniques and materials for states and communities to adapt to their use.

Most visible among the R & D projects have been four Career Education "model" developments. Taken collectively, the four projects address themselves to the interrelated concepts that all people of all ages should have access to Career Education and that all of the institutions of society should be participants in the educational process.

- **Model I (School-Based)** is designed to provide Career Education to young people in the K-12 public school setting, and is often referred to as the "Comprehensive Career Education Model" (CCEM).
- **Model II (Experience-Based)** is aimed at helping teen-agers (13 to 18) who are functioning well in the traditional school environment, by utilizing businesses and industries as an alternative kind of educational setting.
- **Model III (Home/Community-Based)** has as its target out-of-school unemployed adults. It uses modern communications technology to bring educational services or information about existing educational services to people in their homes.
- **Model IV (Rural-Residential)** zeroes in on the disadvantaged rural family, using a residential facility to which entire families come to receive educational and social services.

Contracts for development of the four models were awarded by USOE in mid-1971. However, the

National Institute of Education (NIE) established by Congress late in 1972 was given responsibility for the model projects as part of its overall educational research and development mission.

The four models are undergoing changes in direction due to two factors: (1) criticisms expressed in early evaluations of model development progress, and (2) NIE's educational research philosophy — which differs markedly from that of the USOE officials who conceived the model projects.

However, it is likely that the activities and findings of these multimillion dollar projects (\$4.6 million in fiscal year 1971, more than \$15 million in fiscal 1972 and again in fiscal 1973 and about \$14 million for fiscal 1974) will provide significant inputs to the process of defining and implementing Career Education in the immediate future. Certainly, for anyone interested in Career Education, the models merit serious attention.

Model I: School-Based

Using information then available about local school districts that appeared to be moving toward a Career Education approach on their own initiative, USOE early in 1971 examined 12 cities as possible sites for development and field testing of the school-based model. Considered were Mesa, Ariz.; Los Angeles; Jefferson County, Colo.; Atlanta; Peoria, Ill.; Pontiac, Mich.; Hackensack, N.J.; Akron; Springfield, Ore.; Philadelphia; Pittsburgh; and San Antonio.

Although the original plan was to select only two or three, at the urging of Marland six districts were chosen: Mesa, Los Angeles, Jefferson County, Atlanta, Pontiac and Hackensack. These six "local education agencies" (LEAs) were placed under the coordination and direction of the Center for Vocational and Technical Education (CVTE) at Ohio State U., the prime contractor for development of the school-based model. A \$2 million

contract was awarded CVTE for fiscal 1971, from which each of the six local districts was awarded between \$150,000 and \$200,000 to plan and staff its local effort.

In three of the LEAs — Mesa, Pontiac and Hackensack — the Career Education model project involves the entire school district. In Jefferson County, the project includes only one administrative area with about 5,000 students; in the Los Angeles Public Schools, only the Belmont attendance area (about 13,000 students) is involved; and in Atlanta, one attendance area of about 13,000 students.

The model development has not occurred as rapidly as was originally planned. In October 1971, at a conference sponsored by the American Institutes for Research, Aaron J. Miller of the CVTE staff explained that "in our initial conceptualization of how this project might unfold, the Office of Education and the center believed these six sites virtually had the model in place. The center then expected to work with them, so that a little bit of money and effort and perhaps one or two new components of this model would bless the commissioner's effort to start Model I in September 1972. However, in visiting these sites we found that this assumption was not necessarily the case. . . . There was no clear consensus among the seven of us as to what a career education model ought to be."

Furthermore, Miller pointed out, "while there were a number of operating components in place, most of them . . . were not validated in the sense of having been developed upon student behaviors, performance criteria and data definitely indicating that so and so works because students do in fact perform this way because of this treatment."

Thus, CVTE found it would have to back up and start from scratch with the six LEAs to develop "a conceptualization of the model, a matrix of activities, student performance, performance criteria and alternative curriculum units or treatments for carrying out these strategies," in Miller's words.

Two evaluation reports on the model confirm Miller's early analysis of problems. In a July 1972 report, a nine-member panel headed by Senta Raizen of the Rand Corp., criticized the "crash" nature of the project, observed that it should have included only two LEAs as originally planned and cautioned that its continued development along the same lines could damage NIE's credibility. Because it is an operational program rather than a research-oriented project, the report noted, "priorities are exactly the reverse of what they ought to be with respect to NIE's mission and will further

erode attitudes on the value of education research and development."

An evaluation by a three-member panel which visited the LEAs commented on the impossible time schedule which resulted when the focus changed from "establishing programs quickly" to a "long range development concept." Contributing to this change in focus was the discovery that, of 1,000 instructional units examined nationally for possible adaptation by the project, only 100 were usable.

Under the new focus, the six LEAs were assigned the tasks of developing 98 curriculum units and engaging in extensive staff inservice programs during 1972-73 in preparation for project-wide field testing of the units during 1973-74.

NIE discussed the status of the School-Based Model in an April 1973 position paper entitled "Forward Plan for Career Education Research and Development": "By the end of 1973, 98 curriculum units are to be completed; all will have been tried out in the various cooperating school systems. They will be ready for dissemination in fiscal 1975, following more rigorous field testing. A staff development package to accompany the completed units, a guidance and counseling package and a placement component also will be ready for dissemination."

The Forward Plan observes that "the Model I effort plays a critical role in the NIE program portfolio and in career education in general. . . ." While the other models represent alternative experiments, with few immediate or necessary implications for established educational authorities, Model I is expressly intended to change educational practice. The model's overall K-12 curriculum structure, which takes the student from career awareness through career exploration to career preparation, illustrates many typical career education concepts."

The main problem with the model, the plan suggests, is that "the implied curriculum development task is of monumental dimensions." Further, NIE believes the "infusion strategy" of integrating new Career Education curriculum materials into existing school programs may not be the best approach. It says other strategies — such as altered school staffing patterns, more pervasive career guidance activities, training for new teaching styles or developing stronger career training opportunities outside the school — should be considered.

The Forward Plan indicates the School-Based Model will continue to be an important part of the Career Education research and development effort;

but it is also clear there will be a strong effort to refocus the project away from its attempt to rewrite the total public school curriculum. (The "refocusing" was already underway as this report went to press in late 1973.)

Funding for Model I, amounted to \$5.5 million during fiscal 1972 and \$3.7 million in fiscal 1973.

Model II: Experience-Based

Designed as an alternative to traditional secondary education programs for 13- to 18-year-olds, the Experience-Based Model (at first called "Employee-Based") is under development via contracts with four regional educational laboratories — Research for Better Schools Inc. (RBS) in Philadelphia, the Far West Laboratory for Educational Research and Development in Berkeley, Calif., the Appalachia Educational Laboratory in Charleston, W. Va., and the Northwest Regional Educational Laboratory, Portland, Ore.

As conceived by USOE, Model II is to serve teen-agers "of two types — those rejected by the traditional classroom and those who themselves reject the traditional classroom." It is to be a comprehensive secondary education program, but operated by a "consortium" of employers on a year-round basis and outside of the school setting. The educational components include a core of academic fundamentals, elective career-related subjects, and diversified work experiences for each student. The program is intended to be highly individualized to relate to each student's personal career goals, NIE said.

In 1971, RBS and the Far West Lab were awarded contracts totaling \$2 million to conduct studies of the model design and ways of implementing it. Additionally, a \$300,000 contract was given to the Center for Urban Education in New York — to coordinate a pilot project involving the New York City schools, the city's Human Resources Administration and a group of employers in the insurance/clerical and health occupations.

Subsequent USOE funding has totaled about \$5.5 million annually as the four labs assembled the business consortiums, designed educational programs and recruited student volunteers for developmental testing of the model. Communities near the regional labs — Philadelphia; Oakland, Calif.; Charleston; and Tigard, Ore. — are the sites for these developmental projects.

In Charleston, for example, the consortium working with the Appalachia Lab totals 10 institu-

tions, including two banks, two brokerage firms, a hospital and a department store.

During the 1972-73 school year, each of the four sites had between 25 and 100 high school students enrolled in their pilot programs.

At Tigard, the students are in a two-part curriculum designed by the Northwest Lab on the basis of inputs from employers, parents, students and educators. As explained by lab staffers Rex Hagans and John Svcarovich, "the first part consists of eight major goal areas within which each student will participate in the design of his individual learning program. The specific objectives and learning activities to achieve them will be based directly upon the employment and community experiences the student chooses. The second part consists of 20 basic competencies which all students must master. These basic competencies represent an attempt to define a set of performances which, at a minimum, any person must acquire to live successfully. They include such life skills as obtaining and managing credit, administering first aid and securing a job."

The plan is to document "in case study form" the program experiences of each student, and identify ways in which traditional disciplines occur in occupational situations. An example cited by Hagans and Svcarovich is writing, one of the eight goal areas: "In 50 case studies . . . we will look for the ways in which students going through various work and community experiences had to deal with written communications. If these students encountered technical reports via letters and memos as the most common form of writing, the data would have clear implications for curriculum design."

The NIE Forward Plan observes that Model II "is based on assumptions considered rather extreme by educators: public high school is of little educational value for many adolescent students, and for these students the local employer and community environment can carry the bulk of the education burden." Testing the validity of these assumptions is one of the model's responsibilities, it adds.

A major problem of Model II may be that of scale, since "it is not clear . . . if the strategies that make community-based programs successful in heavily funded experimental programs (such as the Model II projects) will work on a large scale, particularly since the present experiments involve relatively small numbers of volunteer students and highly motivated employers."

NIE plans to field test model prototypes in fiscal 1975, based upon evaluations of the model's

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CAREER EDUCATION

CURRENT TRENDS in School Policies & Programs

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"cost/effectiveness and reproducibility" and studies on whether all four sites need to be used.

In the meantime, the four projects "should be reporting on how they solved legal and educational problems such as meeting state requirements for high school graduation and identification with employers of what students really need to know that is different from the usual curriculum."

"Model II is closest to what many educational reformers have meant by 'increasing meaningful contact with adults,' 'breaking down the distinction between academic and vocational programs' and 'learning in nontraditional situations.' Unlike cooperative education, distributive education and work-study programs, Model II focuses on how employers can accommodate and perhaps restructure work so students can learn from a sequence of well planned experiences. The Model II students are not being paid to learn; they are using the world of work as their school," the Forward Plan concludes.

Model III: Home/Community-Based

Although originally conceived as a system for delivering educational services to the home, Model III has thus far involved simply using established communication channels to provide career information and counseling services to adults.

With rather modest funding (\$300,000 for model development, another \$500,000 for pilot testing), the Home/Community Based Model was developed by the Education Development Center (EDC) regional lab of Newton, Mass., and is being pilot tested in Providence, R.I.

Three adult groups who are not in school, not employed and not actively seeking employment are the model's targets: (1) young adults who haven't yet made career choices, (2) retired people and (3) housewives.

The Providence pilot uses three easily accessible communication channels — telephone, press/radio/television media, and the mails — to reach its target groups.

One component is "The Phone Number," a telephone career information and counseling service staffed by both Career Education specialists and people from the Providence area "home based" target groups who were given intensive training. The widely publicized service provides callers with information about career opportunities, about education and training programs available in the Providence area, and about places for

obtaining related services such as vocational testing, student financial aid and child care services. The telephone counselors pride themselves on careful follow-up of all questions and in serving in a liaison role between the caller and referral agencies.

A second component is the Resource Center. It houses print and audiovisual materials about careers and career preparation, sponsors public displays and organizes conferences and workshops related to Career Education information and resources.

Finally, EDC is developing radio and TV programs on career information and printed materials about promising career fields.

Mailings publicize all of the project components, and people who contact The Phone Number are added to the mailing list to receive timely information about media programs and public events sponsored by the Resource Center.

NIE's Forward Plan observes that Model III "exhibits an impressive clarity of purpose" and "may be the best example of uniting research with a major operational development." However, it suggests that the problem may be of low priority since "it has not been argued convincingly that 'home-based' adults who are unemployed or underemployed are *unable* to obtain information on occupational training, employment opportunities or career guidance."

The document encourages further examination of the original model concept — development of a sophisticated home-based education system. Possible components of such a system include "the community service potential of cable television," "interactive TV systems" using simulation games, career-oriented video cassettes and "educational use of home time-sharing computer systems."

"Mass communication and electronic technology are 'break-through' fields with considerable educational implications but leadership, aimed at educational usage, needs to be given to these developments," the Forward Plan concludes. It adds: "Each of the initiatives suggested... involves expensive multiyear design efforts well beyond the available resources of the career education program but of interest to NIE as a whole."

Model IV: Rural-Residential

Designed to serve rural disadvantaged families, Model IV was established in 1971 as a five-year \$20 million project directed by the Mountain-

Plains Education and Economic Development Program, Inc. A former Air Force base at Glasgow, Mont., has been converted into a residential educational facility, and entire families recruited from a six-state area (North Dakota, South Dakota, Wyoming, Nebraska, Idaho and Montana) receive educational and related social services at the site.

In NIE's words, Model IV "represents a 'total' intervention in that it attempts to influence all significant activities of the family, not only education-related activities. The major goal is to make the family unit economically viable through career counseling, training, remedial education and guidance for the children, homemaking and family development skills for the parents, and placement."

The first 12 families arrived at Glasgow in March 1972. The plan is to serve up to 200 families at any one time with periods of residency varying from 6 to 18 months. Project components include K-12 education programs, adult career and technical education, and medical, dental, welfare, counseling, cultural and recreational services. Agencies in the "home" states are responsible for job placement of the heads of households upon completion of their Glasgow residency.

The NIE Forward Plan states flatly that the Rural-Residential Model "may not be cost-effective. . . . While there are almost no comparative figures for the costs of residential career training or for rehabilitation at any site of multiproblem families, the Glasgow project looks expensive when start-up costs are included. Operational costs are not yet known. It looks so expensive (although it may prove inexpensive if the families are rehabilitated), questions must be raised about how what is learned can be reproduced elsewhere in its present form."

By late 1973, many proponents of the Career Education concept saw cause for additional concern for the future of the movement. Although not officially announced in the *Federal Register* as of mid-November, some shifts in the focus of program funds were already determined. It was clear that fiscal 1974 funds for research under Part C, VEA, were clearly marked for "applied studies in vocational education." In fiscal 1973, the funds were used for research in Career Education. One USOE spokesman said, however, that educators might take a more pessimistic view of the shift than is warranted. The spokesman said the studies will probably contribute to the Career Education field as much as to Vocational Education, and could include research in areas such as guidance and

counseling. Funding for fiscal 1974 for Part C was expected to be comparable to the 1973 figure — \$18 million, half under the discretionary programs matched by half under grants to states. Support for Part D — the "Innovation category under VEA — was expected to remain the same as in fiscal 1973 — \$16 million.

A 1973 analysis of the costs for the first families enrolled in the project revealed cost of approximately \$2,000 per family per month. For an average stay of an estimated 7.3 months, the costs per family exceed \$14,000. NIE compared this figure with other residential-type models and decided that its estimate of approximately \$16,000 per family is "realistic."

"The NIE attitude will be one of skepticism, but not premature closure," the Forward plan concludes. It adds: "There is much theorizing on the critical mass of effectiveness attainable by coordinated service delivery to multiproblem families but little achievement of this in the real world. The contractor staff has devoted considerable energy and experience to providing truly coordinated services. Few situations offer a 'for-once-and-for-all, let's-find-out-if-more-is-really-better, or what-is-enough' opportunity. The Model IV project may."

Federally Supported Minimodels

Concurrent with the four national model projects, USOE has encouraged Career Education development at state and local levels via grants for "minimodel exemplary Career Education projects" under provisions of the Vocational Education Act (VEA) Amendments of 1968. Part C of VEA authorizes funds for vocational education research, including experimental and pilot projects; Part D supports three-year exemplary programs in vocational education at the elementary and secondary levels. Guidelines for grants under both sections have been structured to encourage their use for development of comprehensive Career Education programs.

In fiscal 1971, \$16 million in federal grants were awarded — at least one in each state and territory — for pilot projects which ranged from Wyoming's development of 100 elementary Career Education curriculum units for its model in rural Riverton to Michigan's efforts to involve business-industry-parent volunteers in Career Education in highly industrialized Pontiac.

The Commissioner's discretionary half of the

VEA funds was added to the states' formula grant half in fiscal 1972, to provide totals of \$18 million under Part C and \$16 million under Part D directly to state and local exemplary projects.

The result is more than 100 Career Education model projects in operation throughout the country as joint local-state-federal efforts, involving 750,000 elementary and secondary students.

USOE has also funded a variety of curriculum writing projects related to its categorization of all occupations into 15 career clusters under Part I, VEA. Five clusters — Communications and Media, Construction, Manufacturing, Public Service, and Transportation — were covered in contracts for development of high school curriculum materials, with pilot testing of the results scheduled for the 1973-74 school year. The New Jersey State Board of Vocational Education, for example, received a \$250,000 grant in 1973 to field test the student and teacher materials on manufacturing (developed by the New Jersey board under an earlier \$150,000 grant) at public and private schools in urban, suburban and rural locations.

Plans are to continue development of high school programs in the other clusters, and also to extend the first five cluster programs down into pre-high school levels and upward into postsecondary. Funding for Part I, VEA, was estimated at \$4 million for fiscal 1973, with an equal amount projected for fiscal 1974.

Future of the Models

Two major developments — the transfer of Career Education research (including the four national models) from USOE to NIE, and the Congress-mandated establishment of a Bureau of Occupational and Adult Education (BOAE) within USOE — tended to create a somewhat confused transition period in federal Career Education efforts during 1973. However, some general trends appeared clear.

NIE plans to narrow the focus of its Career Education and development activities to "two target groups most affected by problems of career entry and progression: youth and mid-career adults, particularly women."

NIE Director Thomas Glennan explains that the USOE definition of Career Education as something that should affect "each and every one of us and our children" is too broad to be workable, and that he does not feel "we can be relevant to all these groups simultaneously."

Statements in the NIE Forward Plan also give clear indications that the Institute's orientation is going to be toward more basic research, rather than the installation of developmental research projects into existing educational institutions.

With regard to the four national models, the NIE document says "reviews of the models reveal some major difficulties. . . . Foremost of these is an imbalance toward development, particularly day-by-day operations. The portfolio is typified by little emphasis on documentation, research and analysis, absence of common variables and planned variations, insufficient concern with implementation strategies, a narrow range of contractor types and lack of a systematic plan for summative as well as formative evaluation."

NIE plans to award contracts for evaluation projects to test the cost-effectiveness and transportability of all of the national models during fiscal 1974 and 1975. Future development of the four models will undoubtedly rest on the evaluation project findings.

What happens to USOE's Career Education plans? "While NIE assumed the career education research initiative, USOE continued major efforts to revise curriculum, train teachers and extend demonstration projects," Marland said, adding, "this activity will be carried forward as a major operational concern of the new deputy commissioner of occupational and adult education."

BOAE, headed by Deputy Commissioner Pierce, has three interrelated centers:

- (1) Career Education, responsible for planning, development, coordination and technical assistance for all USOE efforts in this area.
- (2) Office of Occupational Planning, to provide "leadership and technical assistance in the development of occupational education programs."
- (3) Adult, Vocational, Technical and Manpower Education, responsible for operation of four divisions — Vocational/Technical Education, Adult Education, Manpower Development/Training, and Vocational Education Research.

In the fiscal 1974 budget, a request by the Administration for \$14 million to operate USOE's Center for Career Education was not contained in the House action. This means that although the center will "find" money to operate in fiscal 1974,

there will probably be no program money, i.e., funds for contracts or grants.

Feds Agree on Goals For Career Education

In late 1973, USOE wanted to determine the exact amount of money being spent by USOE programs in support of Career Education. In doing so, it came up with "agreed upon" major goals of Career Education programs. The goals, as determined by USOE, NIE and the assistant secretary for education, are:

- Career Education will improve the quality of career choice.
- Career Education will improve individual opportunities for career entry.
- Career Education will improve individual opportunities for career progression.

"All of these goals," the criteria statement said, "require the involvement of other segments of society in addition to the education sector. Nevertheless, the educational sector has specific responsibilities in insuring attention to the qualitative aspects of career choices, preparing students for career entry and enabling them to make and prepare for subsequent choices and progress in careers.

"Accordingly, the following criteria are considered instrumental to the contribution of education to the attainment of the goals of career education and will be used to identify career education initiatives of USOE":

A. A USOE project will be designated a "Com-

prehensive Career Education Project" if it contains all of the following objectives:

1. To develop and expand the career awareness of all students in the educational levels served.
2. To provide all students in the educational levels served with opportunities for detailed exploration and/or specific and general knowledge and skill attainment in careers of their choice through in-school and out-of-school activities.
3. To provide career-oriented guidance and counseling to all students in the educational levels served.
4. To provide career placement services to all students in the educational levels served who are preparing to exit the educational program to insure that each such student enters or returns to a job, further formal education, or a specific alternative life experience designed in terms of the individual's career development.
5. To improve the cognitive and affective performance of all students in the educational levels served by restructuring the curriculum to focus all subjects around a career development theme.
6. To provide training for educational personnel to improve their capability to design, operate, and/or evaluate those aspects of educational programs which meet the preceding objectives.

B. A project will be designated a "Career Education Support System Project" if it contains one or more of the following as its only objective(s):

1. To provide training for educational personnel to improve their capability to

'Plug-In/Plug-Out' Education Advocated

In his book, *Future Shock*, Alvin Toffler states that "the rapid obsolescence of knowledge and the extension of life span make it clear that the skills learned in youth are unlikely to remain relevant by the time old age arrives. Super-industrial education must therefore make provision for life-long education on a plug-in/plug-out basis."

design, operate, and/or evaluate those aspects of educational programs and experiences which meet one or more of the objectives in section A above.

2. To design, develop, test, demonstrate, or disseminate curriculum materials whose specific purpose is to enhance those aspects of educational programs and experiences which meet one or more of the objectives on section A above.
3. To design, develop, test, demonstrate, or disseminate management materials whose specific purpose is to enhance those aspects of educational programs and experiences which meet one or more of the objectives in section A above.

C. A project will be designated a "Career Education Related Project" if:

1. It contains one or more, but not all, of the objectives in section A above, or
2. It contains one or more of the objectives in section A above but attempts to serve only *some* students in the educational levels served (e.g., a school English Department attempts to make its curriculum career-oriented although the other academic departments in the school do not; or a specific vocational program adds a career development dimension to its courses while the remainder of the school maintains the traditional academic-vocational split, etc.).
3. It contains, as only a portion of its objectives, one or more of the objectives in Section B above.

Ottina: Career Education Is Alive and Well

U.S. Comr. of Education John Ottina observes that "despite some changes in Administrative responsibility and some budgetary belt-tightening, I can assure you that Career Education is alive and well in the office and, if anything, is moving ahead with accelerated vigor and vitality."

In addition to cluster curriculum development and support of the state and local minimodels, Ottina emphasizes that USOE will also continue its efforts in development of related curriculums and in preservice teacher education.

"There are Career Education programs on the drawing board for gifted and talented children, for consumer education, for the nation's conversion to the metric system, and even for the nursery set," he said early in 1973.

Regarding teacher education, Ottina noted that teachers' understanding of the concept is "crucial to successful implementation in the classroom" and that "by working with the deans and professors in schools of education, we have tried to incorporate Career Education into the undergraduate preparation of student teachers so they will not need inservice training later." Some \$7 million has been invested in this effort by USOE's National Center for the Improvement of Educational Services.

What all of the federal rhetoric seems to indicate, during the transition period, is that NIE will tend to focus on "pure" research oriented toward possible alternatives to traditional educational systems and (in the beginning, at least) concerned with teen-agers' and adults' entry into employment. USOE will concentrate its Career Education efforts on projects within the framework of existing educational institutions, perhaps with increased emphasis at the elementary and junior high levels because of NIE's move away from these age groups.

Chapter 5



Is Anybody Really Doing It?

Is there, anywhere, an educational system that is providing for all people the total integration of occupational and academic instructional programs, on a planned continuum from cradle to grave, utilizing the resources of all of society's institutions, as described in the visionary definitions of the Career Education concept?

As of mid-1973, the answer to that question has to be that there is not. However, a national survey conducted for this Education U.S.A. Special Report produced ample evidence that many states and local communities are clearly serious about creating just such a comprehensive system. Slowly but surely, here and there, state and local funds are being allocated to the effort, new kinds of education-industry-business-labor partnerships are being formed, school laws and regulations are being rewritten, career-oriented instructional materials are being produced, interdisciplinary teams of teachers are being trained as "managers of learning" rather than classroom lecturers, and basic attitudes about education are changing.

State-Level Efforts

Because VEA exemplary grants have been allocated to every state and territory, each is able to claim that it is doing something to develop and implement the Career Education approach.

However, the *Special Report* survey revealed enormous differences in efforts at the state level. Although many state boards or departments of education have issued ambitious "position papers" and "state plans" for comprehensive Career Education program development, few have obtained any state legislative action yet in the form of fund appropriations or needed changes in school laws and regulations. Some states dwell at length on progress being made in technical-vocational education at secondary and postsecondary levels but have virtually nothing to report at the K-9 level. A

sizable number of states have named a coordinator or supervisor of Career Education; many have not. Teacher inservice and preservice training activities run the gamut from states that have conducted extensive Career Education workshops involving hundreds of teachers – with the active participation of teacher-training institutions – to those that have published generalized Career Education goal statements in teacher newsletters and done little else.

The general picture that emerges is that a large majority of the states are working on a model for implementation of a total Career Education approach, but that most are still in the planning or first pilot project stages. State efforts thus far are usually in direct proportion to the amount of federal dollars received.

But there are some notable exceptions. A solid handful of states – most of them places that were moving toward the Career Education approach even before Marland began making speeches – leave no doubt about their total commitment to the concept. They can point to concrete developments which are already affecting the day-to-day activities of thousands of students and educators.

Among the states leading the Career Education movement are:

New Jersey

Aided by an aggressive State Department of Education, an education-minded governor and a legislature willing to appropriate funds for educational innovation, this industrialized state can lay claim to many Career Education "firsts."

New Jersey has so much to report that it began publishing *Career Education Progress*, a quarterly newsletter, early in 1972. In the opening issue Morton Margules, associate state director of vocational-technical education, listed the Career Education "firsts" claimed by the state. A sampling of

his list: "career exploration program for junior highs with hands-on emphasis, talks with workers at their jobs, enroute bus seminars, and short exploration cycles developed with business and industry (1965)," "the first statewide elementary program to combine career education with academic studies (1966)," "position of director of career development in a state department of education (1968)," "career resource center: a team of experts providing back-up services for comprehensive K-12 career development project (1970)," "first comprehensive K-12 career development project (1970)," "first television appearance of a project for children's career exploration (1971)," "Career Education research utilization system: a statewide system of 100 portable microfiche readers and central reproduction of microfiche-from-microfiche (1971)," and "first state to publish a journal concerning its career education programs (1972)."

While the innovations began in 1965, the major breakthrough came in 1970 when Gov. William T. Cahill and state legislative leaders pushed through a \$318,000 supplementary appropriation for "a vocational education program which will extend from elementary school through high school." Three districts - Camden, New Brunswick, Rahway - were named as sites for the Career Development Vocational Education Pilot Project. At that time, the legislation spelled out six elements which were to be part of the program at each site:

- "Technology for Children" in grades K-6.
- "Introduction to Vocations" in middle school/junior high.
- "Coupled Pre-Vocational Work Study" to provide summer school and actual work experience for employment-bound secondary students.
- Job placement.
- A Career Resource Center.
- Teacher inservice training.

Annual support grew (appropriations totaled more than \$3 million in 1972) and three more systems - Keansburg, Salem, Jersey City - were included. Effective September 1973, the Governor's Career Development Project added 11 new sites, bringing the total to 17 districts. In addition,

Hackensack, one of the LEAs for the federal School-Based Model, is also contributing heavily to the state's Career Education development.

The elementary *Technology for Children* (T4C) program had been used with 37,000 youngsters by 1972-73 and continued to expand. Some 600 New Jersey teachers had been trained to use the program. Plans called for adding 500 more in 76 school districts by mid-1973. The T4C program involves combining technical activities with the usual elementary subjects in a "hands-on, multimedia, multisensory approach to learning." Each T4C classroom is equipped with "interest learning center modules," some of which include hand and portable power tools. Students work with a variety of materials in "learning episodes" that range from writing poems for silk screen card reproduction (first grade language arts) to exploring electricity (third grade science) to writing, producing and filming a play about pollution (complete with scenery and costume construction) or to learning about acoustics by construction of individual musical instruments. Goals of T4C are to develop children's self-awareness and their awareness of the many kinds of things people do to earn a living, and to enhance interdisciplinary approaches to learning.

Similar growth is taking place in the middle school/junior high *Introduction to Vocations* program, which provides students with extensive occupational exploration in at least five cluster areas via field trips, direct contact with resource persons from all kinds of occupations, and shop and laboratory experiences. The program also dovetails with Pre-Vocational Work Study, which provides summer education and paid work experiences for young people in grades 10 and 11.

The responsibility for *job placement service* to students has been widely accepted, and by the fall of 1972 there were 31 full-time job placement coordinators in schools throughout the state.

The *Career Resource Centers* play a vital role, with responsibility for unifying school-industry-business relationships and aiding teachers in curriculum and program development. Each center has two key staff members, a multimedia coordinator and a school-industry cooperation coordinator. Their services are as varied as putting together complete "Introduction to Vocations" resource units for a teacher, using multimedia materials and community resource people; videotaping T4C projects or students at work stations for group discussion playback; coordinating teacher inservice programs; expediting information exchange, and

thereby reducing duplication of efforts; cooperating with business and industry to develop in-plant educational programs; and generally making the latest Career Education resources and materials available to anyone who requests them.

Asbury Park, under a USOE grant, is establishing a computer-based resource center tied to six other school districts via individual school terminals. This center will have the capacity for serving about 200 school districts by 1975.

A state Occupational Research and Development Resource Center (Building 871, RMC, Plainfield Ave., Edison, N.J. 08817) makes a wealth of services available to all New Jersey educators. The center houses the entire ERIC microfiche collection and provides free reproduction service (an innovative feature of *Career Education Progress* has been the inclusion, in a special pocket, of actual microfiche of Career Education documents), coupled with the loan of portable microfiche readers from 76 locations scattered around the state. Also available are more than 500 cassettes, 100 educational simulation games, portable videotape units and a huge collection of films, filmstrips, filmloops and publications. In 1973, the center issued three outstanding resource catalogs — "Elementary School Learning Resources for Career Education," "Grades 7, 8 and 9 Learning Resources for Career Education," and "Senior High Learning Resources for Career Education." They list everything from devices for individualized instruction and simulation games through audiovisual materials and books related to Career Education. (They are available for \$1 each from the Resource Center.)

A steady stream of attractive and informative publications has been a key element in New Jersey's inservice and dissemination effort. In addition to those already mentioned, the Division of Vocational Education has published numerous "Special Paper" reports on cutting-edge Career Education topics. Titles include *Simulations and Career Education, Placement: The Ultimate Test of a School's Commitment to Its Students, Why Career Education? The Facts, Apprenticeship Training and Career Education*, and *Grass-Roots Development of Curriculum for Career Education and County Coordination of Career Education*. (The "Special Papers" are also available from the Resource Center through the ERIC system — ED 069-892.)

Further dissemination activities are part of a \$180,000 federal grant made in 1973 to New Jersey's Vocational Technical Curriculum Laboratory. In addition to aiding further curriculum

development activities, the grant provides funds for the Laboratory's coordination and information dissemination of Career Education curriculum developments in an 11-state New England/Middle Atlantic region extending from Maine to Maryland. This regional assignment is to tie in with USOE's development of a national Career Education dissemination network encompassing all states.

Career Education is expanding rapidly throughout New Jersey. The state's 21 counties are served by 18 full-time Career Education coordinators and Career Education Coordinating Councils are being established in all 21 counties.

For further information, contact the Director of Career Development, State Dept. of Education, 225 W. State, Trenton, N.J. 08625.

Arizona

Under the slogan "Career Education: The 3 R's Plus," this Southwestern state has been turning its education system around since 1971. Not only in the urban centers of Phoenix and Tucson, but also in tiny communities like Salome and Apache Junction, educators and citizens are working together to implement the total Career Education approach as rapidly as possible.

Aided by a state legislature which wrote a Career Education law and which has already appropriated nearly \$10 million categorically for K-12 development, and one of the most complete information dissemination efforts on the subject, Arizona is fast approaching installation of the concept throughout the entire state.

The 1971 Arizona law specified financial aid for establishing career exploration and career preparation programs in grades 7-12; expansion of career testing, counseling and guidance programs; purchase of Career Education materials, equipment and media dissemination; teacher and counselor retraining; curriculum development via total "treatment units" consisting of instructional materials and teacher guides in all subject areas; expansion of supervised work experiences in grades 6-12; innovations in the total concept, especially in rural areas; and public information efforts directed at parents and other citizens. In addition, the Mesa district in suburban Phoenix was one of the six LEAs in the federal School-Based Model project.

With an initial \$1.9 million appropriation in 1971, the Arizona Dept. of Education established pilot projects in 13 locations encompassing 139

local school districts. In fiscal 1973, with another \$3.8 million in state funds, the pilot projects had been expanded to 20 – covering each of the state's 14 counties. More than 5,000 teachers and administrators were actively involved. The state legislature appropriated nearly \$4.6 million for fiscal 1974, which continued funding for 18 of the 20 projects, several with expanded goals and objectives.

The projects are using a K-12 Career Education matrix (i.e., "roadmap") containing 33 element themes and 271 goal statements, boiled down after input from 300 educators and nearly 500 lay citizens from across the state.

The seriousness and extent of Arizona's Career Education movement are indicated by the following items:

- More than 2,500 counselors and administrators, and some 4,700 teachers, have received inservice training in Career Education. The state's colleges and universities have participated extensively in this effort.
- A Career Education Clearinghouse prepares and distributes materials statewide. By mid-1973, the clearinghouse had compiled and distributed a massive Career Education bibliography to every school, and had microfilmed and distributed more than 15,000 pages of Arizona-produced Career Education materials.
- The state's labor laws have been amended, with specific reference to Career Education, to allow young people at the junior high level to engage in work experiences as a part of their educational program.
- The state staff includes an apprenticeship coordinator who works with labor and management to integrate apprenticeship program efforts with the overall educational program.
- Cooperative education programs expanded in number from 55 in 1968 to more than 300 in 1972, in both rural and urban settings.
- The public information program has produced a spectacular array of brochures about Career Education (in Spanish and English) for various target publics – parents, working people, business and industry, educators; plus thousands of column inches of newspaper copy on the subject; and some television and radio

materials of professional quality. Arizona State U.'s Bureau of Broadcasting produced a 20-part series of half-hour programs on Career Education for telecasting on the state's educational TV stations, and the U. of Arizona's Radio-TV Bureau developed 80 Career Education featurettes – 40 each for radio and television – which have been widely disseminated through commercial radio and TV stations.

A Project PACE (Plan for Arizona's Career Education) task force has completed work on the matrix to the end that it be "flexible, concise, locally owned and understandable," on a comprehensive 10-year plan to include outcomes through 1980, on an instrument designed to categorize Arizona-developed materials for the clearinghouse effort, on development of "instructional training materials for community leaders throughout the state," and on general coordination of the continued Career Education project efforts.

For further information, contact Career Education, Dept. of Education, 1535 W. Jefferson, Phoenix, Ariz. 85007.

Oregon

With a position statement entitled "Career Education in Oregon," this state's Board of Education in 1970 established the concept as one of its priority goals. Using that statement as its guide, and operating under a plan for kindergarten through postsecondary and adult education, Oregon has set some ambitious targets for statewide implementation.

The status of Career Education in Oregon is summarized in a publication highlighting its fiscal 1974 state plan for vocational education:

- Approximately 30% of elementary students are in "planned career awareness experiences as an integral part of their instructional program." About 60% of the districts are beginning to implement such activities, with a goal of awareness activities available to every elementary student by 1978.
- Career exploration programs in grades 7-10 already involve 40% of students at this level. The goal is 100% participation by 1978.
- Career preparation in occupational clusters

enrolls more than 40% of all Oregon 11th and 12th graders. The goal is 70% by 1978.

- Cooperative education programs have some 3,000 secondary and 2,000 postsecondary students participating. The goal is 12,000 secondary and 7,000 postsecondary by 1978.
- Regional career education coordinators have been provided in 12 of the state's 14 administrative regions. The goal is to have such a coordinator in each region shortly.

Oregon was a pioneer in the development of instructional programs centered around career clusters. High schools throughout the state have been designated as Cluster Developmental Centers: Mechanical – Adams High School (Portland), Food Service – Aloha High School (Beaverton), Agriculture – Cascade High School (Turner), Multi-Cluster – Hermiston High School, Secretarial – Lebanon High School, Bookkeeping-Accounting – Gresham High School, Clerical – Lebanon High School, Electrical – Sabin Skill Center (Milwaukee), Marketing – Madison High School (Portland), Health Occupations – Grants Pass High School, Construction – Canby High School, Forest Products – Pleasant Hill High School, and Metals – Roosevelt High School (Portland) and Scappoose High School.

Other developmental projects include curriculum for individualized instruction on an open-entry/open-exit basis at the state's community colleges, career guidance counselor inservice training in the Portland metropolitan area, teacher recruitment and training from business and industry at Portland Community College, teacher preservice education in Career Education at Oregon State U., a career exploration research development project in the Portland Public Schools' Area II, and the state's comprehensive exemplary project in the David Douglas Schools, Portland.

Facility planning to dovetail with the cluster concept is also part of the Oregon effort, and a 60-page Career Education cluster facilities guide has been published for school administrators and architects. The basic concept is that each cluster area should have three physical zones – a resource center with instructional space, a laboratory for job simulation experiences and a support zone containing conference rooms and clean-up areas.

For further information, contact Leonard E. Kunzman, Director of Career Education, Oregon

Board of Education, 942 Lancaster Drive NE, Salem, Ore. 97310.

Maryland

The Maryland State Dept. of Education built its Career Education program on pilot activities which began as early as 1968. In 1971, the State Board of Education mandated that the state education department "develop a comprehensive plan to serve all youth and adults involving career orientation, exploration, preparation for job entry and/or further education, including intensive guidance and counseling services." A detailed five-year plan was drawn up for implementing the concept in all 24 local school districts by 1977.

Eight strategies are listed for reaching the goals of the "Career Education Five-Year Action Plan":

- A K-adult plan which identifies and utilizes the resources of business-industry-labor community for career education programs will be implemented and evaluated in each of the 24 local educational agencies.
- Publicly supported teacher training institutions will make available to all its counselors and teachers in training at least one course of study in career education and development.
- Teachers in grades K-adult will acquire the skills and understanding necessary to effectively relate their content areas to a broad spectrum of career clusters.
- Programs enabling young people and other adults to participate in a sequential program of vocational and skill development will be inaugurated at all grade levels in every local district.
- Students will have access to career guidance programs appropriate to their needs.
- Each local school system will develop a plan which identifies sequential career development skills and those personnel who can provide them.
- The State Dept. of Education and local boards "will activate parent advisory committees which will function to express the needs, goals and contributions of the family unit to the process of Career Education."

- All public schools will activate a "parent advisory committee" to relate the family unit to Career Education in the schools.

The State Department's managerial activities are spelled out in the plan, and time guidelines and cost factors for each are included. Strong emphasis is placed on staff development and disseminating on resources information (e.g., a Career Education Resource Handbook); a quarterly newsletter to keep business-industry-labor-education communities informed about current developments; a \$50,000 audiovisual media presentation. The plan also calls for providing a Career Education coordinator in each of the 24 local districts and 16 community colleges, and support for a variety of pilot projects (a model in two senior high schools to operate 18 hours daily, six days a week, 12 months a year; regional career study centers with experimental programs in all career clusters, K through adult; teacher-industry exchange programs wherein workers enter the school setting and teachers enter an industrial work setting; training Career Education instructional aides; and instructional TV materials development).

Actual funding for the full resolution of these activities has not been achieved, according to Nancy M. Pinson, prevocational and career development specialist for the State Dept. of Education. She said some money was allocated through general education funds and combined with "appropriate" allocations from vocational-technical moneys. The funds were scheduled to be focused in 1973-74 on the regional career study centers — an important part of the Maryland approach — and on the upgrading and retraining of counselors in the competencies needed to provide career guidance service to all students.

The State Dept. Task Force on Career Education was continuing to explore during 1973-74 alternative routes to full implementation of the state plan.

The Maryland Career Development Project (K-adult), federally funded under the VEA Amendments of 1968, underway since 1970, completed its formal funding in June 1973. Its components were incorporated into the five-year plan or into the local units where they were located. The components include:

- *Elementary school awareness* with a consultant aiding the faculties of eight Baltimore elementary schools in development of programs designed to improve career awareness.

- *Junior high interdisciplinary Career Education team development*, via the workshop approach, with each school team initially consisting of teachers from industrial arts and home economics and the counselor. In the second year teams were expanded to include the mathematics teacher and a fifth member elected by the school faculty. By year three, the school administrator and a backup team of office level personnel in curriculum, guidance and career education were added to the teams. (During the summer of 1973, inservice training was provided with state funds to 14 additional school districts.)

- *Development of a computerized placement information system for high school students*, with access from the high school to a central data bank containing information about post-secondary programs and Baltimore area employment opportunities. (This model will be examined for its portability to all school systems.)

- A "work advocate" program for dropout-prone junior high students, in which such students, aged 14-16, are provided three hours a day of cooperative work experience in school-neighborhood small businesses.

- *Production of a TV series*, aimed at fourth through eighth graders, about career opportunities available in Maryland in a variety of cluster areas.

- *Development and dissemination of a career development notebook for teachers at all levels*, containing information about the Career Education concept, models already in use at various places in Maryland, and available resources and techniques for implementing Career Education in schools.

For further information, contact Ms. Nancy M. Pinson, Prevocational and Career Development Specialist, or Neil Carey, chairman of the Career Education Task Force, State Dept. of Education, Box 8717, Friendship International Airport, Baltimore, Md. 21240.

Ohio

A long-time leader in vocational education, Ohio

began to move in 1970 to provide a comprehensive approach via its Career Continuum Plan for kindergarten through adult education. Early that year, under a state law that provided \$75 million in matching funds for construction and materials purchases, each local district was required to offer comprehensive vocational education programs to its students. Seventy per cent of Ohio's high school students already have access to 12 or more Voc Ed programs.

Components in the Ohio Career Continuum Plan are:

- A "Family Life Program" with special emphasis for the disadvantaged, "to help improve the care and motivation of preschool children and assure a more positive impact of the home on the needs of school-age youth."
- A "Career Motivation Program" in grades K-6 to encourage all youth to respect all work and to want to participate in some part of the work of the world.
- A "Career Orientation Program" for all students in grades 7-8 to expand their understanding of the professional, technical, skilled and other occupations in the world of work.
- A "Career Exploration Program" for all youth in grades 9-10 or ages 14-15, to gain firsthand experiences with several career fields in order to better make a career choice.
- An "Occupational Work Adjustment Program" for dropout-prone students aged 14 to 15, which "uses work as an adjustment process" to prove to such students "they are worth something and to encourage them to stay in school and make better choices of a vocational program at age 16."
- A "Career Preparation Program" for 16-year-olds and up which includes options for a "comprehensive vocational education program" leading to employment, a "comprehensive preprofessional education program" leading to employment, a "comprehensive preprofessional education program" leading to postsecondary education at the professional level, or "occupational work experience" for dropout-prone youth via cooperative education programs leading to employment.

- A "career training, retraining and upgrading program" for out-of-school youth and adults which provides continuous opportunities for skill training and upgrading throughout the work life of the individual.

Ohio presently is implementing the K-10 components as widely as possible. During fiscal 1974, the state added \$2.5 million to \$796,000 in federal funds to assist 24 local districts. The 24 project districts include rural, suburban and urban settings, and involve 246 schools and 4,900 teachers serving 148,374 students. The state's goal is implementation of a program for career choice for all 2 million of its public school students by 1980.

Participating districts are eligible for supplemental funds at a rate up to \$20 per student for the Career Motivation Program, \$25 per student for Career Orientation, and \$30 per student for Career Exploration. The supplemental funds may be used for, but are not limited to, expenditures for program coordination, salaries, inservice training programs and materials, transportation costs, program supplies and materials, guidance and testing materials, and supplies and instructional equipment.

In addition, Ohio is experimenting with an experience-centered pre-postsecondary program which provides for integration of related disciplines. This program is geared toward students who have identified professional goals in the business administration, engineering, health or social science degree programs. The block-time program is being conducted in four schools, three of which are joint vocational schools for 11th- and 12th-grade students, and one in a major city high school.

Efforts at the secondary and postsecondary level are also continuing with \$46.5 million of Ohio's federal revenue sharing funds and an additional \$20 million in state funds allocated for the 1974 school year for further construction of vocational education classrooms.

Three massive curriculum guidebooks have been published to assist local districts. The 339-page *Career Motivation Guide* (1973) contains developmental objectives, related behavioral objectives, suggested activities, sample lessons and an extensive Career Education bibliography for grades K-6. The *Career Orientation Program Guide* (1972) contains information on how to implement a program in grades 7-8 that includes a student-centered conceptual focus, a career cluster focus and a discipline (subject) focus. The 373-page *Career Exploration Program Guide* (1971) includes

suggestions for implementation in grades 9-10. It also has an extensive listing of instructional resource materials for 10 occupational clusters.

Three 10-minute teacher-training films, for use by local education agencies, deal with the motivation, orientation and exploration components of the career development program in grades K-10.

With strong cooperative education programs in many of its districts, Ohio's schools have long offered graduation credit for out-of-school experiences, including volunteer service both during and after regular school hours.

For further information, contact Byrl R. Shoemaker, Director of Vocational Education, State Dept. of Education, 65 S. Front St., Room 612, Columbus, Ohio 43215.

North Carolina

Another of the pioneering states, North Carolina traces its Career Education developments back to 1957. At that time, formation of a Dept. of Curriculum Study led to suggestions for far-reaching changes in Voc Ed. Twenty Industrial Education Centers (IEC) were developed to provide two years of postsecondary vocational training to adults over a wide geographic area. Other key points in the evolution of a comprehensive plan occurred in 1963 with expansion of the IECs into a total postsecondary system with community colleges, and with the "Introduction to Vocations" program for secondary students (guidance-oriented, team teaching to interrelate math, science, English and vocations). In 1969, Career Exploration began in grades 7-9, and in 1971 Career Awareness was extended downward to grades K-6.

The state takes pride in the fact that 14 community colleges and 42 technical institutes now put educational opportunities at the postsecondary level within commuting distance of 90% of its entire adult population.

Part of the credit for the Career Education push goes to an aggressive North Carolina Advisory Council on Vocational Education. The Council recommended in 1971 that "appropriate occupational education must be provided to every student in every elementary, junior high and senior high school in North Carolina and made available to all out-of-school youth and adults in the postsecondary institutions of the state."

Strongest of the North Carolina components is the middle school program. Originating as a

9th-grade Introduction to Vocations elective for all students which featured units on relating one's individual aptitudes and interests to occupations, economic education, exploration of several occupational clusters, and self-evaluation and future educational and occupational planning, the program got a massive boost with a \$3 million appropriation from the state legislature in 1969.

The program, expanded to cover grades 7-9, is now called "Career Exploration." It features hands-on experiences in shops, laboratories and community settings, group guidance activities, and "the infusion of occupational information into the regular subject matter." The suggested sequence: seventh graders are to explore 7 of the 15 occupational cluster areas (North Carolina uses agriculture, business and office, communications and media, construction, environmental control, fine arts, health, hospitality and recreation, manufacturing, marketing and distribution, marine science, personal services, public services, transportation, and consumer and homemaking education as its cluster headings). Eighth graders explore the remaining 8 clusters for longer periods of time. Ninth graders receive extensive exploratory activities in the four clusters which most interest them individually. The suggested time scheduling is 72 periods (24 in occupational information and group guidance, 48 in exploratory activities) at grade 7, 108 periods (36 information and guidance, 72 exploratory) at grade 8, and 180 periods (60 guidance, 120 exploratory) in grade 9.

As of the 1972-73 school year, 67 school districts were operating middle school projects with state funds, and the goal is rapid implementation of "meaningful career exploration activities for every middle grade student in the public schools of North Carolina."

For further information contact T. N. Stephens, Chief Consultant, Awareness and Exploration Occupational Component, State Dept. of Public Instruction, Education Building, Raleigh, N.C. 27602.

Wisconsin

A long-time (since 1911) leader in vocational and adult education, Wisconsin is also among the innovators in developing Career Education.

Among the advances which served to build a strong position in secondary and adult Voc Ed, the Wisconsin legislature in 1961 required every city in the state with a population of 5,000 or more to

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establish a local vocational/adult education advisory board. In 1965, the legislature mandated the development of a total statewide network of Vocational, Technical and Adult (VTA) Districts by 1970 (each district had to have at least 187,000 population, \$450 million property valuation and 3,000 high school graduates annually). The result has been creation of a system of technical colleges, institutes and technical-vocational schools that provides tuition-free vocational programs to young people and adults in every area of the state. In addition, the state's high schools have long granted graduation credits for "capstone" on-the-job training programs and for work experiences.

Beginning with a cooperative project between the Shawano Public Schools and the State Department of Public Instruction to include career development concepts in social studies and science curriculum guides, Wisconsin has also been working on a comprehensive Career Education approach since 1969.

Based on the Shawano experience, the state department put together a 1970 two-week summer workshop which resulted in production of the *K-12 Guide for Integrating Career Development Into Local Curriculum*. It was used by personnel of 35 local districts in 10 workshops during the summer of 1971 to write career development guides specifically tailored to the needs of their districts. Many of these 1970 and 1971 projects evolved into federally funded exemplary programs, such as the career education resource center housed at Lakeshore Technical Institute (Sheboygan), and a K-Adult research and development project involving the Eau Claire Public Schools and District One Technical Institute (Eau Claire).

The guide was also used as a model in a national training conference sponsored by USOE in January 1972. It includes a career development scope and sequence model for introducing, developing and emphasizing 16 basic career development concepts at appropriate grade levels. Also included in the guide are an extensive bibliography and listing of resource materials broken down under three headings: self-understanding, work world, and planning and preparation. (The state plans to revise and update the guide during the summer of 1974 to include newly developed Career Education materials.)

Wisconsin stresses a team approach to planning, developing, implementing and evaluating different phases of its Career Education program. Donald W. Severson, consultant for the state department's

Counseling and Guidance Services, says "the team approach does a great deal to dispel the image and belief held by many that Career Education and vocational education are synonymous. The team responsibility also increases the potential for integrating the Career Education approach throughout all learning activities and among all ages of people." Who makes up the Wisconsin "teams"? Within the school, team representation includes teachers, counselors, students, curriculum specialists, support services, vocational coordinators and administrators. Outside the school, representatives include parents, members of boards of education, labor, business, industry and government agencies.

Sixty school districts were "known to be active in Career Education" during 1972-73 and the number is growing. The most successful approaches used throughout the state, according to Severson, include:

- Inservice workshops for teachers, counselors, administrators and parents held throughout the school year and during the summer.
- Development of career resource centers including the Wisconsin Instant Information System for Students and Counselors (WISC) — a microfilm career information aperture card operational in 85% of the schools of the state.
- The Instant Career Education Directory (ICED) a toll-free telephone network for information and openings in the state's vocational/technical system.
- Mobile career guidance vans serving clusters of small rural schools.
- Teacher/counselor development of curriculum guides integrating Wisconsin's 16 career development concepts into curriculum activities.
- A cooperative approach among high school districts and the vocational/technical school districts through articulation of educational opportunities, services, curriculum planning. A major thrust in this approach is under way in Eau Claire, LaCrosse, Sheboygan and Wausau.
- Inservice and communication through the Educational Television Network.

- Widespread use of community and university advisory committees.

Cooperative statewide activities in career education include annual conferences held by the U. of Wisconsin at the campuses of Madison, Oshkosh, Whitewater and Stout; conferences held by various professional associations; annual regional Governor's conferences on Partnerships in Career Education; publications of the Wisconsin Dept. of Public Instruction; the Annual Governor's Conference on Vocational Education; Northeastern Wisconsin In-School Television (NEWIST) project which has developed films and video tapes in the career and self awareness areas; and over 100 local projects funded under Title III of the Elementary and Secondary Education Act and the Upper Great Lakes Regional Commission.

For further information, contact Don Severson, Consultant, Counseling and Guidance Services, Wisconsin Dept. of Public Instruction, 126 Langdon St., Madison, Wis. 53702.

Texas

With some firm objectives already established, the state of Texas is attempting to build Career Education into all its 1,147 local school districts. This is in line with a recommendation by the State Board of Education stating that Career Education is to be given "top priority for development" during the 1973-74 school year.

As further evidence of state commitment, the Texas Education Agency (TEA) has placed responsibility for operating program activities in Career Education throughout *all* of its cost centers, rather than creating a separate division. The Office of Regional Education Services has been designated to coordinate all TEA program activities in Career Education.

TEA cooperated with a 21-member state advisory commission on Career Education in developing and distributing to all local districts "A Tentative Framework for Developing Comprehensive K-12 Career Education." A statewide Career Education assessment is planned for 1973-74.

Career Education development in Texas is seen as an effort involving cooperative funding from federal, state and local sources. For instance, a major exemplary project entitled "Partners in Career Education" involves the combined resources of TEA, the regional centers in Fort Worth and

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Richardson, and 160 independent school districts serving a student population of 600,000.

Each of the 20 Regional Education Service Centers has conducted an areawide Career Education awareness conference involving about 3,000 professional staff members. One or more local districts in each region has committed resources to a cooperative agreement with its center to serve as a model site.

Other specific TEA objectives include: (1) commitment by a minimum of five districts in each region to implementing Career Education during the fall of 1973, (2) the inclusion of Career Education concepts and methodologies in teacher education programs by at least 5% of the state's teacher training institutions, (3) the inclusion of Career Education in the inservice programs of all independent school districts and (4) the publication and distribution of Career Education bulletins for elementary, middle schools and high schools.

Information efforts have included production of a 30-minute videotape for use by commercial TV stations throughout the state, as well as for teacher and administrator workshops; plus a 60-second TV public service announcement to familiarize the general public with the Career Education concept.

For further information, contact Walter Rambo, Director of Career Education, Office of Regional Education Services, Texas Education Agency, 201 E. Eleventh St., Austin, Tex. 78701.

Washington

In 1971, the Washington Legislature passed a law providing that "the State Board of Education shall adopt rules and regulations to implement vocational education programs in the elementary and secondary schools." Responding to the mandate, the State Board later that year adopted regulations providing for "occupational exploration programs" in grades 1-8 and expanded Voc Ed opportunities for secondary students.

While the elementary and middle school programs appear less developed at this point, Washington has proceeded rapidly with some innovative approaches at the secondary/postsecondary level.

In addition to requiring that all Washington high school students receive one year of occupational training as part of their graduation requirements, the State Board has encouraged development of Vocational-Technical Institutes which provide programs "directly related to employment opportuni-

ties" and which operate on an open-entry/open-exit/continuous progress basis.

Also encouraged are interdistrict cooperative approaches to expanding occupational program availability, and close working relationships between public schools and the community college network. Use of lay/educator advisory committees is required for every vocational program, and Washington is ahead of most states in its working relationships with industry and labor joint apprenticeship councils at the high school level (where students can complete a portion of their apprenticeship time in many trade and industrial areas before graduation).

As just one example of the impact of this emphasis, Issaquah High School requires acquisition of a *salable* skill for graduation, and provides an impressive range of programs to meet this requirement: diversified occupations, distributive education, a complete business and office cluster, five industrial arts programs, three health occupations, a variety of vocational home economics (power sewing, catering service, nursery school aide, food education and service training), and several agricultural skills (agri-business, forestry, ornamental horticulture, conservation, farm machinery repair, small engines). Many of these programs are interdepartmental in their approach — the agri-business student may study soil analysis in the agriculture department, chemical fertilizers and pesticides in the science department, and bookkeeping in the business education department. Many programs allow opportunity for on-the-job training experiences in the community.

The innovative Vocational-Technical Institute approach began in the 1960s, and five such institutes were already in operation by 1970 — at Bellingham, Lakewood, Kirkland, Tacoma and Renton. With the objective of specific job training geared to local job opportunities "for persons aged 16-54 who have completed or discontinued their formal education," the institutes utilize nongraded continuous progress approaches. Students literally can enter them at any time and leave whenever their educational objective has been reached.

In 1973, State Supt. Frank Brouillet asked for legislation (despite opposition from the community colleges) to expand the institute network as rapidly as possible with state support. Brouillet, a former community college administrator who also drafted the state's 1967 community college act while he was a legislator, observed that "vocational-technical institutes provide an alternative

not available in community colleges" and that "many vocational students rebel from being required to take academic courses. Many of our high school students rebel at having to wait until after high school graduation to take vocational education training. Many of our students rebel at having to wait for a new quarter or new enrollment period to begin vocational training.

"Nongraded vocational-technical institutes are a viable alternative designed to fill a purpose not served by any other institution," he concluded.

Also sought was legislation opening up the high school vocational skill centers for adults 18 years of age and up "whether or not they hold a high school diploma or certificate" — with the proviso that such adult students' attendance be counted for regular state operational and capital fund distributions.

A third request, for support of career awareness programs in the elementary grades, was met by an appropriation of \$250,000 by the legislature for Career Education development during 1973-75.

Under provisions of a 1969 Interdistrict Cooperation Law, Washington became an early leader in developing cooperative Voc Ed arrangements between school districts. The law gives extra "weighting" for state fund distribution, to support the cost of transporting students and teachers between such cooperating districts. Many of these efforts to pool resources have also involved cooperative arrangements between public school districts and a community college.

For further information, contact Richard R. Lutz, Supervisor of Career Education, Office of State Superintendent, Old Capitol Building, Olympia, Wash. 98504.

Michigan

Typical of a large group of states that appear solidly committed to the Career Education concept, but which have not yet really installed it in local districts statewide, Michigan is moving its planning effort through K-12, intermediate and community college districts. Increased dialogue is provided by 49 "Career Education Planning Districts" which include representation by the local operational districts.

State Dept. of Education leaders are pointing out that a large portion of Career Education implementation needs to be funded by regular ongoing state resources.

As this report went to press in late 1973, the Michigan Legislature was considering a Career Education bill which would create a State Career Education Advisory Commission of 20 members, "of which not more than half shall represent education." The commission would be required to: (1) "evaluate current state, regional and local efforts toward career education" and submit the findings to the State Board of Education, (2) recommend to the State Board "guidelines and performance objectives for a comprehensive career education program," and (3) "review K-12 teacher certification requirements as they relate to professional personnel development for career education" and make appropriate recommendations to the State Board.

The proposed law would also require each regional Career Education Planning District to have a district-level planning council (again, no more than half being educators) responsible for submitting annually to the State Board "a comprehensive, cohesive and well coordinated career education plan . . . (to) provide for the local educational agency delivery of comprehensive career education programs." Finally, the bill would require, effective with the 1975-76 school year, that each local district have "a comprehensive career education plan which is designed to provide a career education program for every K-12 and community college student."

Working with a consortium of the seven major teacher training institutions in Michigan, the State Dept. of Education is working on planning for both inservice and preservice programs to complement a statewide developmental effort.

In addition, at the request of the Michigan Legislature, the Dept. of Education has surveyed each Michigan school district to determine the extent of programming and enrollment in grades K through adult of Career Development and Job Placement Programming. Copies of this report were submitted to the Legislature.

For further information, contact William E. Weisgerber, Supervisor, Career Development, Michigan Dept. of Education, Box 928, Lansing, Mich. 48904.

California

This populous state has long been a leader in the development of comprehensive high schools and community colleges which have strong vocational,

as well as academic, components. Through the efforts of the State Dept. of Education's Career Education Task Force — financed with \$2.2 million in federal funds — California is now moving to implement a prekindergarten through adult approach in all of its public schools.

The "Comprehensive Career Education Research and Development" effort involves project directors at a dozen sites, a central staff of consultants in early childhood education, counseling and guidance, professional development, community college education, research and development, and the state coordinator of labor-industry-education. The intent is to develop exemplary programs including "activity packages" for every level from prekindergarten through adult which cover all of the major Career Education conceptual goals.

Project sites include Camino Union School District, Ceres Unified School District, Covina-Valley Unified School District, Los Angeles City Unified School District, Monterey Peninsula Unified School District, Orange Unified/Santa Ana Unified School Districts (consortium), Richmond Unified School District, Sacramento City Unified School District, San Diego County Office of Education, San Mateo County Office of Education, Santa Barbara School District, and Sonoma County Office of Education.

Inservice activities at the project sites have ranged from concentrated summer workshops of one to five weeks in length, to a series of seminars spaced from one to four weeks apart, to the "cadre" approach of providing summer training to selected teachers who in turn provide training and exemplary activities to other teachers in their schools.

California's high schools have long granted credit for work experience programs, and a new state law requires development of a proficiency test by January 1975 which could be used by 16-year-olds with high ability to obtain a "certificate of proficiency." It would enable them to leave school or enroll in a community college (since 1967, 11th and 12th graders have been allowed to attend community colleges part time).

The state Scholarship and Loan Commission, under a new law, has 500 grants per year through 1977 earmarked for needy students in postsecondary occupational education and training. Each grant is for a maximum of \$2,500 annually for up to two full years.

For further information, contact Paul N. Peters, Career Education Task Force Chairman, State

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Dept. of Education, 721 Capitol Mall, Sacramento, Calif. 95814.

Louisiana

Louisiana outlined a massive redirection for education within the state with its adoption of a "State Plan for Career Education," backed up by an \$8 million special appropriation in 1973 to implement the plan. By August 1973, all of the state's 66 parish school superintendents had endorsed the plan and applied for their Career Education allocations.

The major effort in the first year of the program concentrates on the infusion of career concepts in all elementary and secondary schools, according to Asst. Supt. Thomas G. Clausen, program officer for Career Education. Other components of the state plan call for inservice and preservice training of teachers and administrators, increased vocational-technical education at the secondary and post-secondary levels, and emphasis on curriculum development and revision, communication skills, needs assessment, and human relations and interpersonal skills.

An 11-member steering committee appointed by State Supt. Louis J. Michot selected 47 elementary and secondary teachers to develop 24 curriculum guides in academic and vocational subjects. The guides were introduced at inservice workshops during the summer and regular school term and were ready for distribution to all schools in October 1973. Final revision of the guides is scheduled for 1974, based on input throughout the school year from classroom teachers, professional organizations, curriculum specialists, and state and local administrators.

To help with implementation of the concept, the state's Handbook for School Administrators, which sets the curriculum requirements for high school graduation, was revised and offered as an option to parish superintendents. Forty-four of the public school systems chose to implement it immediately, although acceptance of the requirements was not mandatory during the 1973-74 school year.

Inservice training in career education concepts is a major effort extending from State Department of Education personnel to parish superintendents, an 80-member task force from eight planning districts, parish teams and all teachers.

The 1973 budget contained an item of \$50,000 for the inservice training of institutional faculties,

in recognition of the need to provide preservice orientation to career concepts to students in the state's teacher-training institutions. Another aspect of the state plan — the development of competency-based teacher education programs — is underway in six universities.

Louisiana also hopes to expand the occupational opportunities of its children with a communication skills program, which concentrates on language skills in both English and French.

The short-range goal of the communication program is to pilot the concepts of the newly written curriculum guides in French in 11 target parishes, covering 66 schools.

More than half of the \$8 million state appropriation for Career Education went to local school systems "to implement programs of greatest need." The money could be used to employ a counselor in an elementary school, to employ vocational education instructors or to provide adequate facilities, materials and equipment. Each local system was required to establish a Career Education advisory council "representative of all segments of the population."

The state plan proposed activities in vocational-technical education at both the secondary and post-secondary levels. In addition, \$1.9 million was focused on increasing programs at vocational-technical institutions and at Delgado Junior College.

In a Nov. 15, 1973, report to the State Legislature's Subcommittee on Career Education, the State Department of Education pinpointed the rationale for the massive attack on the state's education problems: "For too many years, Louisiana has failed to coordinate her educational efforts — to provide the same high quality of instruction in all localities of the state; to show the correlation between what is learned in school and what is needed in the world of work; to provide our students with basic skills needed for effective functioning in the adult world. For the first time, this program has brought about a coordination of effort in education, an effort designed to make all of education more responsive to the needs of students."

LOCAL DISTRICT EFFORTS

Dozens of local school districts, ranging from large urban settings to suburban to those in rural areas, responded to a survey for this report that

they are implementing comprehensive Career Education programs systemwide.

Many of them indicated, however, that they were just getting under way, with first pilot projects scheduled for development during 1972-73 or 1973-74. In a large number of the districts, the terms "career education" and "vocational education" were used interchangeably, frequently to describe improvements being made in Voc Ed.

Based on the information supplied by the respondents, those systems which appear to be far along in the development of a comprehensive K-12 or K-Adult program, or which have some unusual features, include:

Riverton, Wyo.

The major federally funded (Part D-VEA) exemplary project for Wyoming, School District No. 25 in Riverton (3,300 students) has been developing a comprehensive K-14 approach since 1970. Exemplary features include implementation in an established K-14 system (Central Wyoming College is a partner in the project), individualized instruction, continuous progress approach with learning activity packages for each pupil and interdisciplinary methods.

About 90% of the K-6 staff is now involved in Career Education; junior high students are learning about the world of work in 11 clusters via films, community resource persons, field trips, and the Wyoming Occupational Resource Kits (WORK) microfilmed information on more than 400 jobs; and cooperative education opportunities have been expanded for students in grades 11-14.

For further information, contact Career Education Project Director, School District No. 25, Riverton, Wyo. 82501.

Watertown, S.D.

Another federal Part D-VEA exemplary project, a comprehensive K-12 effort by the Watertown Public Schools (3,900 students), was designed to create change via an extensive inservice program for counselors and teachers, and through an integrated K-12 program of occupational information, orientation and exploration. The program, in effect from 1970-73, lists some of its aims and accomplishments:

The elementary component encouraged Watertown teachers to develop their own classroom units. The junior high effort sought to restructure the entire junior high curriculum around career clusters. The senior high level featured a strengthened counseling effort, coupled with curriculum development. Counseling included a summer career development program for all incoming 10th graders and their parents. (In 1972-73, 218 of 323 10th graders participated.)

At the end of the three-year project, Watertown was again funded as a demonstration site for the state of South Dakota. While picking up many of the elements of the earlier program, "Career Education" — the title of the new effort — will encourage increased visits by other districts to the Watertown schools and participation by Watertown staff in Career Education implementation throughout the state. The program will concentrate on a statewide inservice education program for teachers, counselors and administrators. Plans call for providing services to 50 selected school systems during 1973-74 (with selection based on those indicating strongest interest in forming multidistrict associations); 25 additional schools for a total of 75 in 7 geographic areas during the second year (1974-75); and all schools in the 8 geographic areas of the state in the third year.

Watertown is also the site of the Lake Area Multi-District Career Center (constructed as a turnkey lease-purchase project), which offers training in 10 career areas to juniors and seniors from nine cooperating school districts, and of the postsecondary Lake Area Vocational-Technical School with its 20 skill areas.

For further information, contact Career Education, Watertown Independent School District, 435 Tenth Ave., NW, Watertown, S.D. 57201.

Memphis, Tenn.

Program SPAN (Start Planning Ahead Now) is a federal Part C-VEA exemplary and locally funded effort involving 36 schools (16 elementary, 13 junior high, 7 senior high) located in all four administrative areas of the city and serving about 20,000 students. The elementary component includes 10 locally produced 15-minute TV programs on career fields in the Memphis area for in-class viewing by fourth through sixth graders. Accompanying the programs is a 300-page guide for teachers suggesting how the career areas can be

related to math, art, science, and social studies. (The series was kinescoped to 16mm film for more flexible classroom scheduling.)

Elementary teachers were encouraged to write individualized units relating Career Education to existing subjects and suggesting "hands-on" activities, and a small honorarium was paid to the teacher for each unit accepted by the program. Accepted units were then duplicated and disseminated to all teachers at the appropriate grade level throughout the Memphis City Schools.

Junior high components include exploration of the 15 clusters via field trips and resource speakers, access to both Project INFOE microfiche aperture card sets describing local jobs and a computerized career information system, and a cooperative education program for over-age (16 years plus) students.

Senior high features include a strong emphasis on cooperative education, "quick-shot" vocational minicourses for vocational seniors, and a career placement coordinator at each high school.

For further information, contact James E. Hugueley, Program Director, Northside High School, 1212 Vollintine St., Memphis, Tenn. 38107.

Mesa, Ariz.

As one of the six local education agencies in the national School-Based Comprehensive Model Project, this suburban Phoenix district is almost totally immersed in implementing Career Education for its entire 28,000 students in 35 schools, K-12. The major delivery system is curriculum units fused into ongoing curricula at all levels, using a comprehensive matrix of goals based on the eight career elements (career awareness, self-awareness, appreciations and attitudes, decision-making skills, economic awareness, skill awareness, employability skills, and educational awareness) subdivided into 32 themes.

The Center for Career Development is engaged in the postfield test revision of instructional units (10-20 hours in length) for all grade levels. Each unit contains a common format and has been developed in a 16-step process which includes writing performance objectives; specifying proposed content and activities; critiquing by a minority advisory team (to eliminate cultural bias), an interdisciplinary team, and a district goal-relevancy team; writing and editing; pilot testing; a cycle of revision and field testing; and final revision.

In an innovative approach to Career Education inservice training, the district developed a short competency-based individualized course of instruction to be taken by all certificated employees of the district (90 administrators and 1,250 teachers). Each staff member had the opportunity to select from eight booklets with coordinated filmstrips, TV presentations, and audio tapes the particular materials that suited his or her purpose. Every staff member was required to take post-tests and upon successful completion of them was compensated for the time spent in the training above the staff member's regular contract.

Mesa's high schoolers are able to earn credits via work experience or volunteer community service (United Way, Chamber of Commerce, Community Social Services), and the district has implemented an Alternative High School with a central theme of career preparation. Credit by examination is available for students who demonstrate competence in the stated objectives of various courses.

An aggressive community resources and public information program keeps both internal and external publics well informed of Career Education developments. Strong emphasis is placed on community involvement through a resource speakers bureau, educational field trips, and "hands-on" exposure to career opportunities. Dissemination teams were utilized at individual schools with coffee klatches, door-to-door contacts, assemblies and other activities to achieve community understanding and involvement in Career Education. Advisory committees are used extensively in Mesa.

In the area of support services to the project, Mesa is developing a computerized pupil data system, a career information system (educational, occupational and labor market information organized and coded by levels), an educational resources system (listings of all available instructional materials and equipment, facilities and transportation resources, and community resources), and a guidance and placement program to complement the career education program. The district's guidance staff carried out an extensive needs assessment and has formulated and developed an improved program of guidance and counseling based upon the actual needs of students as expressed by students, parents and teachers.

For further information, contact William K. Poston, Assistant Superintendent for Educational Services, Mesa Public Schools, 549 N. Stapley Dr., Mesa, Ariz. 85203.

Akron, Ohio

Building on an already strong background with \$235,000 in state funds for fiscal 1973, Akron is working on a comprehensive K-12 approach with a pilot project involving 11 schools (4 elementary, 5 junior high, 2 senior high). Nearly 10,000 of the system's 55,000 students are directly involved at the state-required level of seven hours plus per week. More than 800 community agencies, companies and individuals have cooperated in offering on-site visitations or making classroom presentations. Akron also makes widespread use of advisory committees.

Counseling and guidance receive emphasis at all levels, with vocational testing offered at the secondary level through the use of the Ohio Vocational Interest Survey (OVIS) and General Aptitude Test Battery (GATB).

Inservice workshops are an ongoing activity beginning with some help prior to the school year and continuing during out-of-school hours thereafter. Workshop content includes understanding the Career Education concept, planning class activities to relate careers to subject areas, curriculum guide improvements, familiarization with available resources, and staff feedback about how well the activities are meeting stated goals and objectives. Some unique inservice activities have included a day of "hands-on" instruction for all junior high teachers at the high school vocational shops; and participation by an elementary faculty in a telecourse on William Glasser's approach to effective teacher-student relationships.

Placement services are a shared responsibility of counselors, high school vocational staff members, and a countywide centralized placement service. A monthly *Career Education Exchange* newsletter, started in February 1973, reports on the close involvement and participation of the total community. For instance:

- Firestone Tire and Rubber Co. is serving as a "living-learning laboratory" for 30 students in grades K-12. A written/pictorial record of 50 job sites is being developed as a resource for students and teachers.
- Students from junior and senior highs, in cooperation with the Scouting Explorer program, are involved in career exploration at such locations as veterinary clinic, city hospital and Goodyear Tire and Rubber Co.

- A ninth-grade "Youth Motivation" program launched at one junior high in cooperation with the National Alliance of Businessmen involves local businessmen and women who serve as sponsors for students interested in researching the business world.
- Home economics students from Akron U. spend four afternoons each quarter with sixth graders to provide sessions on foods, home management, consumer economics and child development.
- A joint project with the Industrial Arts Dept. of Kent State U. gives students in grades 1-4 opportunities to experience mass production and division of labor concepts with hands-on experiences provided at Kent State laboratories.

Some additional Career Education activities offered in 1973-74 include:

- A preprofessional engineering and medical program for 11th- and 12th-grade students, offering more than 22 hours of instruction per week in both classroom activities and field experiences. The program is available at one of the city's high schools and is open to students on the basis of "interest, grades, citizenship, attendance and ability to profit from the program."
- In the Career Exploration phase of Akron's program, 9th- and 10th-graders gain experience in local volunteer agencies such as baby clinics, day care centers and local hospitals.
- Ninth graders may explore horticulture, construction, photography, machine trades, sheet metal fabrication and automation in the district's "career laboratories." Tenth graders interested in vocational training may explore five career areas by spending six weeks in each area.

For further information, contact Nicholas Topougis, Career Education Programs Coordinator, Akron Public Schools, 65 Steiner Ave., Akron, Ohio 44301.

Dayton, Ohio

Dayton also has a long history of moving toward

the Career Education approach, having begun pilot projects in five schools in 1969. Like Akron (and other Ohio systems), Dayton is developing K-10 programs with state assistance, and about 10,000 students in 25 schools are involved.

Emphasis is being placed on an interdisciplinary approach to development. At the junior high level, for example, career orientation activities totaling 270 hours per year for seventh and eighth graders were developed jointly by the supervisors of industrial arts, home economics, science, math, social science, music and art. New program units are introduced in preschool inservice workshops of two weeks in length (one week for existing instructional units). Workshops feature "hands-on" activities for the teachers — mingling with professionals and tradesmen from business and industry, and field trips into the community.

While admitting that it needs further expansion of its 11th- and 12th-grade vocational programs, Dayton has already jumped from 1,523 enrollees in 72 vocational classes in 1969-70 to 6,014 students in 286 vocational classes during 1972-73.

For further information, contact James O. Reynolds, Career Education Director, Dayton Public Schools, 348 W. First St., Dayton, Ohio 45402.

Worcester, Mass.

Although the formal commitment to an organized comprehensive program did not come until November 1972 with the establishment of a Career Education Curriculum Development (K-12) Committee, the Worcester Public Schools already have a number of the pieces in place.

Secondary school students already have access to a wide variety of career-oriented options: graduation credit under work experience programs; distributive education; "Dynamy" (a program of study involving a coordinated year's work of internship activities in public affairs); a "School Within a School" community learning situation program in which the student attends only physical education and one other course at school and earns his remaining credits in the community; an alternative school; an agriculture program where the student leaves the school setting completely for full-time field experiences (for full credit) during the winter semester and summer; a transportation cluster developed jointly by the public and trade school systems to provide reciprocal credit opportunities in both career training and academics, and eight skill centers for various occupations on the middle school level.



Oregon Initiates Competency-Based Graduation

One of the most significant Oregon developments is a new competency-based high school graduation credit system to be effective with the 1978 graduating class. The system bases graduation credit units on 130 clock hours in any "planned course" (defined as including statements on "goals to be achieved, general course content, expected learning activities, procedures for evaluation and anticipated learner outcomes in terms of skills, knowledge and values"). A student must earn 21 units in grades 9-12 to receive a diploma.

The regulation requires each local board to "identify the performance indicators it is willing to accept as evidence that individual students are equipped to survive in the society in which they live" and that students' transcripts show "the degree to which he or she has demonstrated the knowledge and skills necessary to function" in the areas of personal development, social responsibility and career development. Graduation credit may be granted by examination or by approved off-campus experiences, and the regulation observes specifically that "all competencies need not be developed by each student within the schooling process." Each local district in Oregon must file its plans for implementation of the requirements by July 1, 1974.

Worcester already has some innovative approaches to staff development, too: a 15-session Career Education Seminar for equivalent credit, aimed at research program and project development in conjunction with the Career Education Curriculum Development Committee; a Community Dynamics Program in which teachers develop lesson plans and classroom activities while participating in internships at various businesses and industries; and released time for on-site visitations for business/industry orientations. For further information, contact Arthur F. Sullivan, Associate Superintendent for Research and Development, Worcester Public Schools, 20 Irving St., Worcester, Mass. 01609.

Other Districts

Additional school districts whose responses to the survey for this report indicate a comprehensive Career Education approach in development included the remaining five LEAs for the national School-Based Model project (Atlanta, Jefferson County, Ky., Pontiac, Hackensack, Los Angeles); Peoria and Rockford, Ill.; St. Paul, Minn.; Tulsa; Buffalo, N.Y.; Tucson; East Baton Rouge, La.; Louisville, Ky.; Dallas; Houston; Fort Worth; Albuquerque; Boise; Montgomery County, Md.; Des Moines; and Oakland, Calif.

Systems mentioned in current literature as developing a comprehensive approach include Pikeville (Ky.) Independent School District (*Career Education: Perspective and Promise*, pp. 253-72); Orange County, Fla. (*American Education*, May 1973, pp. 15-21); Seattle (Wash.) Public Schools, (*American Education*, July 1971, pp. 12-15); and Syracuse, N.Y. (*Today's Education*, February 1973, pp. 24-27).

Details of the various exemplary projects funded in each state under Parts C and D of the VEA-1968 (PL 90-576) are contained in two USOE publications: *Abstracts of Research and Development*

Projects in Career Education (a 146-page booklet describing Part C projects published in June 1972 and available through the ERIC system under No. ED-063-520) and *Abstracts of Exemplary Projects in Vocational Education* (a 118-page document describing Part D projects, published in November 1971 and available through ERIC under No. ED-060-189).

Among those locations not previously mentioned where a school system is developing a comprehensive K-12 or K-Adult approach under Part D are: Bridgeport, Conn.; Pottawattamie County, Iowa; Cloquet, Minn.; Helena, Mont.; Bernalillo Municipal Schools, N.M.; Sheboygan, Wis.; and the Washington, D.C., Public Schools.

School districts taking the comprehensive approach under a Part C grant include: Mobile County, Ala.; Magnolia (Ark.) Public Schools; Monterey Peninsula (Calif.) Unified School District; San Mateo County, Calif.; Santa Barbara (Calif.) City Schools; Norwalk (Conn.) Public School District; Pinellas County, Fla.; Crisp County and Liberty County (Ga.) Public School Districts; Hawaii Dept. of Education; Mason City (Iowa) Public Schools; Unified School Assn. for Vocational Education (a consortium of 14 small rural districts), Hill City, Kan.; Calcasieu Parish and Lafayette Parish, La.; School District No. 9, Farmington, Me.; Washington County, Md.; Amory City Public Schools, New Albany Public Schools, Kemper County Public Schools and Franklin County Public Schools, Miss.; Milford (Neb.) Public Schools; Washoe County (Nev.) School District; Keene (N.H.) Union School District; Taos (N.M.) Public Schools; Caldwell County and Lenoir City, N.C.; Sand Springs (Okla.) Public Schools; Portland (Ore.) School District No. 1; McKeesport (Pa.) Area School District; Sioux Falls (S.D.) Public Schools; Fort Worth, Houston and Harlandale Independent School Districts, Tex.; Ogden (Utah) Public Schools; Windsor (Vt.) Northwest School District; Spokane County Area, Wash.; Town Public School District, Beckley, W. Va.; and Humacao Public Schools, Puerto Rico.

Chapter 6



Postsecondary Developments

Some of the thorniest problems related to implementation of the Career Education concept reside at the postsecondary level.

A primary Career Education goal is to end the dichotomy between academic and vocational education, but this dichotomy is perhaps most pronounced in postsecondary educational institutions.

Many universities view their primary role as broad intellectual development and balk at the idea of including occupationally oriented associate degree programs under the same roof with baccalaureate and advanced degrees.

A 1970 study conducted by Eastern Kentucky U. showed a significant increase in the number of state colleges and universities offering less-than-baccalaureate programs although it also revealed that less than one-half of the colleges and universities presently make such offerings. On the other hand, most area vocational schools and technical-vocational institutes are virtually forbidden to offer liberal arts courses, and focus their entire curricula on the narrow goal of developing specific job skills.

Even some of the junior and community colleges — which are clearly closest to the Career Education concept among the postsecondary institutions — still operate almost totally separate divisions for college transfer students and occupational education students.

Several deeply ingrained procedures of higher education (e.g., admissions procedures, transfer credit evaluation, residency requirements, institutional accreditation) clash violently with such Career Education goals as individualized instruction, performance criteria certification and open-entry/open-exit.

In a 1972 speech before the Assn. of American Universities, Marland outlined some of the problems: "Freshman enrollments are declining in some four-year institutions. . . . The dropout rate among first- and second-year students continues high, apparently caused not so much by the student's

inability to handle the work as by the conviction that higher education is not only expensive, which may be tolerable, but irrelevant, which is not. Graduate enrollments are also down for a variety of reasons. Among them, young people are finding that the first degree is not opening many doors to career opportunities, and have come to the not unreasonable conclusion that a second degree might not help much either.

"At issue is the role of four-year colleges and universities in a postindustrial society that is also an increasingly egalitarian society. For many students who might ordinarily be attracted to them, these institutions do not seem realistic in terms of career preparation," Marland continued, adding that students "see academic and career preparation as integral ingredients of their educational expectations. They ask higher education first for career guidance so they do not go through a four-year program in sociology or aeronautical engineering or teacher education only to find that the job market for their specialized skill had all but closed five years earlier. They ask higher education to articulate intellectually and culturally broadening academic offerings with utilitarian objectives and real world experiences."

Marland also warned the universities of the impact that K-12 Career Education adoption is likely to have in future years, observing that "high schools will send on to institutions of higher education many more students with definite ideas and aspirations about what they intend to do with their lives. Under this concept, both the two-year institutions and four-year institutions will need to increase their adaptability for providing continuity of the individualized career education programs for students initiated in the high school years."

This is already happening in some places. Late in 1972, the Los Angeles Board of Education officially asked the U. of California — Los Angeles (UCLA) to modify its entrance requirements, noting that the high school movement toward

Career Education was making it difficult for some students to meet the current UCLA requirement of a "B" average in one year of American history, three years of English, a year each of algebra and geometry, a year of lab science, two years of foreign language, and one or two years in an advanced math, foreign language or science course.

However, there is ample evidence that higher education is moving toward compatibility with the Career Education concept in many places.

A Theoretical Model

A theoretical model for postsecondary Career Education was posed by Amo DeBernardis, president of Portland (Ore.) Community College, at a 1973 invitational conference attended by state vocational education directors and representatives of community/junior colleges and adult and continuing education programs.

Observing that "postsecondary institutions must be in reality open-door educational shopping centers where all people can find a variety of programs and courses to meet their individual needs and interests," DeBernardis listed these elements and concepts as essential to his theoretical model:

- **The community as the campus**, with the total community's people, homes, businesses, government, shops and factories "looked upon as laboratories for teaching and learning."
- **Open door** "to all regardless of their previous experience or ability."
- **Easy entry, exit and reentry**, with the observation that "even if a student does not achieve his objective, he should be able to leave in dignity."
- **Diagnostic center**, to provide opportunities for a student to determine his knowledge and skills, challenge programs and obtain credit for what he already knows, and for assistance in overcoming deficiencies.
- **Learning support center**, containing all of the media, equipment and human resources needed to support the teaching/learning processes.
- **Modular programs**, all planned on performance objectives and all designed so that the student can select the components he needs.

- **Earn and learn experience**, using the institution's various supportive service departments as paid "instructional stations in the ongoing operations of the college for students who have achieved basic skills."
- **Articulation of programs** with the secondary schools and other educational agencies, including contracting with other agencies for Career Education services which the school cannot provide.
- **General education component**, which "will permeate the institution. The facilities, the decor, the staff, the landscape, all will build a rich living environment for the student. Many activities will be offered to give students access to the social, political and economic life of the community. Seminars, films, speeches and other activities will give the student an awareness of a larger society outside their specialty. . . . Students will be encouraged to explore related economic, social and political topics which relate to a career area."
- **Taking educational programs to the people** "in the community, the plant, the office or the agency" with "the same institutional support and recognition as those offered on the campus."
- **Advisory committees** for every program.
- **Educational audits** designed to keep "educational programs in tune with the needs of the society."
- **Apprenticeship** program articulation and cooperation.
- **Staffing** with personnel selected "on the basis of skills, understanding and commitment to the philosophy and goals of the institution" and with the understanding that "exchange of personnel with business and industry will be the rule rather than the exception."
- **Continuous operation** "around the clock, 7 a.m. to midnight, and graveyard shift if needed, seven days a week."
- **Placement and follow-up** services for every student, involving "a comprehensive data col-

CURRENT TRENDS in School Policies & Programs

Community colleges should also make the careers of students and the experience a generalized educational method available to all students, rather than specialized occupational education students. And in both the college world and the occupational education portions of the community college, individuals from the local business-industry-labor community should be used as instructors to supplement the academic background of community college instructors. Two career education concepts are particularly applicable to community college students: (1) V-learning work by a student in his chosen field should be encouraged and be used as a basis for academic credit, and (2) students should be encouraged to visit various business-industry-labor settings in the community for purposes of occupational exploration and career decision making.

lection system and a group of field personnel to keep in personal contact with the employer."

- **An industry and business training center** located on campus for the community's use in personnel upgrading programs.
- **A drive-in learning center** which would "make it possible for the student in his car to get information, lectures and demonstrations on career programs."
- **The community on campus**, encouraging shops, stores, offices, business and industry to physically locate on the campus.
- **Change and innovation** encouragement for all staff members, in all programs.

DeBernardis concluded by pointing out that his theoretical model is not a "pie in the sky concept," but rather the actual guidelines for planning and building the third Portland Community College campus scheduled to open in 1975.

SOME POSTSECONDARY INNOVATIONS

Here is a sampling of some of the innovative developments which have linkages with the Career Education concept at the postsecondary level:

Columbia U.: Total Restructuring

Columbia U., in its first major curriculum reform since it pioneered the general education concept after World War I, plans a total restructuring of its curriculum to combine general education with professional disciplines at both the undergraduate and graduate levels. Result of a year-long study headed by W. Theodore deBary, executive vice president for academic affairs and provost of Columbia, the plan will allow undergraduates to begin taking professional discipline work as early as the sophomore year and to extend a general education core through the graduate programs. Traditionally, graduate programs focused on narrowly defined professional training.

In presenting the plan to the University Senate, deBary said, "the educational problem is one that has to deal with the fact that many students do want serious, specific training in disciplines with

career value, but who also want to continue a broader education in the social and humanistic values in which these disciplines are being conducted."

A side benefit, he suggested, is that the interdisciplinary nature of the new approach would have the various professions teaching and learning from each other, thus closing some of the gaps between schools and departments which have in effect made Columbia a "multiversity" instead of a "university."

Nontraditional Approaches

Nontraditional approaches to higher education, such as the "open university" and "university without walls" programs, appear to be growing significantly. An early example was the National Urban Studies Program's University Without Walls initiated by the Dept. of Housing and Urban Development in 1969. State and local governmental employees could earn B.A., M.A., Specialist and sixth-year certificate degrees while remaining on the job. (Cooperating universities were Detroit, Northern Colorado, Oklahoma, and Manatee Junior College.)

More recent are the establishment of Empire State College in New York, a school with no campus which operates via "learning centers" scattered across the state; the proposed Benjamin Franklin U. in Pennsylvania, which would use existing college, library, hospital, business and educational TV and broadcast facilities, and which would "give credit for knowledge — regardless of its source"; Thomas A. Edison College in New Jersey; Minnesota Metropolitan State College; and others.

Redefining Postsecondary Education

Many states are moving to redefine the roles, and better coordinate, their entire postsecondary education systems. To cite just two examples:

Pennsylvania has assembled a task force made up of three representatives from each of its 14 state institutions of higher education, to redefine "the mission of the state college and university system," in the wake of a 1973 State Board of Education moratorium on establishment of any new branch campuses or community colleges or expansion of state-supported colleges.

A Kansas Master Planning Commission, in an extensive 1972 report entitled "Postsecondary Educational Planning to 1985," has recommended combining all of the state's area vocational-technical schools and community junior colleges into a "streamlined and integrated network of comprehensive two-year colleges" reduced from the present 33 institutions to 20. No new institutions are to be established during the 1970s, the Commission said.

The Kansas report specifically addressed the problem of the "dual system of academic and occupational education." It concluded "there should no longer be any controversy as to whether these two kinds of curricula should exist in one kind of institution or in separate, different kinds of institutions. . . . Kansas cannot afford to treat academic and occupational education as distinct and separate entities."

College Transfer Credit

The matter of college transfer credit is getting serious attention at the national level. USOE, in cooperation with the American Council of Education, is studying the feasibility of a nationwide "Credit Bank" that would allow students to transfer credits — without any loss — from any participating college in the nation to any other.

The College Entrance Examination Board is studying the whole area of college credit for work experience via performance credentials. At the urging of USOE's Bureau of Higher Education, the Commission on Occupational Education Institutions of the Southern Assn. of Colleges and Schools has accredited four Air Force specialized occupational schools, and the American Medical Assn.'s Council on Medical Education has approved several of the allied health training programs of the various armed services.

Community Colleges Setting the Pace

The community college movement — fastest growing segment of postsecondary education in the nation — is setting the pace in many developments such as open-entry/open-exit, individualized instruction, and use of performance objectives to structure curriculum and report student progress. Praised by Marland as "considerably ahead of the field" in meeting the educational needs of the nation's adults, the more than 1,000 community/junior colleges "now offer 16,000 separate courses, with 4,000 new ones on the drawing boards each year."

"A particularly encouraging aspect of this curriculum explosion," Marland said, "is that academic and career-related courses are so often taught under one aegis" and that the "separation of academic faculty and students from vocational faculty and students hasn't taken hold in community colleges as it did, notably in our high schools, and most certainly in our universities."

The many skill areas offered by community colleges is so extensive that virtually every kind of technical skill is represented in the curricula of one or more of them, from X-ray and nuclear maintenance technology (Cuyahoga Community College, Cleveland) to commercial airline pilot training (Pasadena City College, Calif.) to chef training (New York City Community College) to business machine repair (Community College of Denver). The Carnegie Commission on Higher Education, in its 1970 report entitled *The Open-Door Colleges: Policies for Community Colleges*, urged that such institutions be established within commuting distance of every potential student in the nation. It recommended the addition of 230 community colleges to the more than 1,000 existing ones by 1980.

Chapter 7

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Innovations in Instructional Programs, Materials

The number of innovations that relate to the Career Education concept in the area of curriculum, instructional materials and physical facilities is staggering, and so many new ones are occurring almost daily that it is difficult to keep tabs on all of them.

Some of the innovations are summarized below, along with suggestions for additional information.

ELEMENTARY LEVEL

Among the hundreds of efforts to improve K-6 program efforts in the development of self-awareness and occupational awareness are these:

Cobb County (Ga.) Occupational and Career Development Program, a three-year federally funded project, has produced more than 50 K-6 units which, in the words of Project Director Joel Smith, "are so devised that they offer enough structure to create a feeling of security on the part of the teachers and yet are flexible enough to permit teachers to draw upon their own creativity and the interest of the students as they implement them." Teachers direct one unit each nine-week period, with time involved left to the individual teacher's discretion. However, six elements must be included in each unit:

1. A hands-on activity.
2. An "all-subject-matter-tie-in" approach to relate the curriculum to both the hands-on activity and community occupations.
3. Visits to the classroom by resource persons.
4. Business and industry field trips.
5. Role-playing by the students to demonstrate occupational characteristics and the need for cooperative efforts.

6. An introduction to occupations.

The units are designed to coordinate with the 15 occupational clusters suggested by USOE. Each includes a self-evaluation checklist for the teacher, a "child observation" guide, a written evaluation for pre- and post-tests, and a bibliography and resource listing.

For further information, contact Joel Smith, Director, Cobb County Occupational and Career Development Program, P.O. Drawer R., Marietta, Ga. 30060.

Florida's Project FAIS (Fusion of Applied and Intellectual Skills) a K-12 curriculum development funded by the Florida State Dept. of Education since 1970, aims at developing students' capacity to form and clarify their own set of values within an occupational-choice framework. Beginning with a set of "hypotheses for kids" which establish concepts about man and work, discovery-oriented activities are then used to test the hypotheses. First phase of the project was K-5. Subsequent phases will develop activity units of increasing sophistication to extend the value-development program through grade 12.

For further information, contact Midge Smith, Project FAIS Director, P.K. Yonge Laboratory School College of Education, U. of Florida, Gainesville, Fla. 32601.

Florida's Project LOOM (Learner Oriented Occupational Materials), a K-6 project funded by the Florida State Dept. in 1970, has developed 150 "learning packages" about specific occupations with correlation to the 15 USOE clusters. The units are designed to integrate with the standard curriculum, especially in the areas of vocabulary and computational skills, and they often utilize multimedia materials as well as field trips and student role-playing.

For further information, contact Project LOOM,

Dept. of Industrial Arts Education, Florida State U., Tallahassee, Fla. 32306.

New Jersey's Technology for Children (T4C) project, mentioned on page xx, has produced about 50 "learning episode" packages for the elementary level in its innovative project which dates from 1966. The project has an extensive background in inservice and preservice training for teachers to prepare them for this innovative elementary classroom environment.

For further information, contact Fred Dreves Jr., Technology for Children Project Director, Division of Vocational Education, State Dept. of Education, 225 W. State St., Trenton, N.J. 08625.

Eastern Illinois U.'s OCCUPAC Project, a state and federally funded research and development effort, uses a multimedia approach to present career information and concepts for grades K-9. Feature of this project is development of packages of materials related to different occupations — slides which show what the job involves, tapes which provide the sounds of the occupation as well as a commentary and equipment and basic tools related to the occupation (one first-grade unit OCCUPAC, for example, features slides and tapes on the work of the electrician and then provides the materials with which students can wire simple circuits containing light bulbs and switches).

For further information, contact Marla Peterson, Project OCCUPAC Director, The Center for Educational Studies, Eastern Illinois U., Charleston, Ill. 61920.

The School-Based Comprehensive Career Education Model (CCEM), coordinated by the Center for Vocational and Technical Education at Ohio State U., involves six local school districts. Information on the curriculum units developed under the model can be obtained from the center. Some of the units were in the field-test stage during 1973-74; others were in the "final revision" stage.

For further information, contact School-Based Comprehensive Career Education Model Project, Center for Vocational and Technical Education, The Ohio State U., 1960 Kenny Rd., Columbus, Ohio 43210.

TV and Film Materials: Numerous projects are developing TV and/or film materials for elementary Career Education, including those mentioned earlier under the New Jersey, Arizona, Wisconsin and Memphis SPAN descriptions.

Some others:

- Part of the Maryland Career Development Project is the production of 15 twenty-minute "Calling Careers" TV lessons by the state's Center for Public Broadcasting.
- A unique feature is use of young people only two years older than the elementary viewing audience to relate to the on-the-job visuals and question the workers.
- The Clark County (Nev.) School District, as part of its overall Career Education development, is using \$225,000 in federal funds to produce 90 fifteen-minute 16mm career awareness films for sixth-grade use, with each film on an occupation found in the state.
- At the national level, the National Instructional Television Center headquartered at Bloomington, Ind., is in the process of organizing a consortium to finance and produce a 17-part "major classroom series in career education" for 9- to 12-year-olds. Plans call for the series to be ready for use in September 1974.

BIOGRAPHIES, PUBLICATIONS

Several compilations of current information on Career Education curriculum and resource developments have been published. One is a 518-page *Sourcebook of Elementary Curricula, Programs and Products* compiled by the Far West Laboratory for Educational Research and Development, which contains a substantial section on Career Education. (Available at \$5.75 from the Supt. of Documents, Govt. Printing Office, Washington, D.C. 20402; Stock #1780-1072.)

Another is a 197-page *Annotated Bibliography of K-6 Career Education Materials for the Enrichment of Teacher and Counselor Competencies (ETC) Project*, published in October 1972 by the Center for Educational Studies at Eastern Illinois U., and containing sections listing materials on (1) Career Education theory, rationale and philosophy, (2) noncommercial K-6 curriculum guides, projects and units, (3) commercial K-6 Career Education materials, (4) measurement and evaluation instruments, and (5) Career Education bibliographies.

General Learning Corp. (250 James St., Morristown, N.J. 07960) has published a 256-page

"Career Education Resources Guide" contains 100 case studies and lesson plans from more than 200 schools, at \$4.50.

Also available from the American Institutes for Research is a detailed curriculum for Career Education in grades K-9, contained in *Career Education: A Curriculum Design and Instructional Objectives Catalog*. The 390-page publication describes patterns and trends in curriculum development, and details a master curriculum design, and contains as well 2,000 instructional objectives, indexed by curricula and concepts. The book (\$8.50) is accompanied by a companion bibliography (\$9.25). Both are available from Developmental Systems, Dept. 1, American Institutes for Research, P.O. Box 1113, Palo Alto, Calif. 94302.

The commercial publishers are into Career Education at multimillion dollar levels. A comprehensive listing of printed and multimedia materials is contained in *World of Work: A Handbook for Teachers and Counselors*, an excellent K-6 guidebook published in 1971 by The Leslie Press of Dallas. A number of commercial materials was reviewed by educators in the October 1972 issue of *Scholastic Teacher*.

Career World, a monthly publication in its second year of operation, aims its features, tips, job descriptions and profiles toward students. Its main appeal may be that it provides tips and "interest-inciters" and gives follow-up names and addresses for more information. Available from Curriculum Innovations, Inc., 501 Lake Forest Ave., Highwood, Ill. 60040 (minimum 15 orders to one address: \$2.95 per student per year).

The main caution with regard to commercial materials is to check copyright and publication dates, as occupational materials tend to become dated rather quickly.

Probably the best continuing source for current developments in Career Education materials – for all levels – will be the ERIC Clearinghouse in Career Education (CICE), housed at Northern Illinois U. and scheduled to start operations about December 1973.

The new clearinghouse, CICE, under the direction of David Tiedeman, foresaw the scope of its activities as falling into three "core areas": Formal and informal adult education; vocational-technical (research documents and related resources, new subprofessional fields and industrial arts education); Career Education (research, promising practices, curricular material and other documents

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related to all facets of career education at all levels of the formal and informal educational systems"). For more information, contact David Tiedeman, Clearinghouse in Career Education, Northern Illinois U., 204 Gurler, DeKalb, Ill. 60115.

The Center for Vocational and Technical Education at Ohio State U. offers two quarterlies, *Abstracts of Instructional Materials in Vocational and Technical Education (AIM)* and *Abstracts of Research Materials in Vocational and Technical Education (ARM)*, at annual subscription rates of \$11 each. In addition, 20 publications dealing specifically with Career Education were scheduled for publication by the center by the end of 1973. *Centergram*, a free monthly newsletter, keeps interested parties posted on activities of the center as well as announcing new publications. For more information, contact The Center for Vocational and Technical Education, Ohio State U., 1900 Kenny Rd., Columbus, Ohio 43210.

JUNIOR HIGH/MIDDLE SCHOOL LEVEL

The major trends at this level are to provide occupational exploration, either through out-of-school experiences or business and industrial "hands-on" simulations within the school; an interdisciplinary approach to the curriculum; and efforts to structure both the exploratory activities and curriculum development to the occupational clustering concept.

Among examples of innovations at this level, in addition to those already mentioned under the sections on New Jersey, North Carolina and Ohio, are:

The Industrial Arts Curriculum Project, developed with \$2 million in USOE funds, has produced junior high curricula for the construction and manufacturing clusters. "The World of Construction" program, designed as a full-year course, involves actual construction of structures or pieces of structures at the school site. "The World of Manufacturing" deals with the management, personnel and production techniques needed to produce finished goods and involves actually forming, operating and liquidating a corporation. Software (textbooks, lab manuals, teacher guides, achievement tests) for the two programs is being published by McKnight Publishing Co., Dept. 43A, Box 854, Bloomington, Ill. 61701.

Program of Education and Career Exploration (PECE) is a Georgia project initiated in 1969 to integrate firsthand job experiences with the regular junior high instructional program. Through cooperative efforts of business, industry, teachers, counselors and parents, the PECE program allows each student a once-a-week vocational exploration experience.

Five-week units are used, and a typical pattern is to give the student a one-day orientation to a general career area, a five-hour day "on the job" in the community, a day of group guidance, another day in the community in a second job, and a day of summary on the requirements and opportunities of the career area. Exploratory experiences are integrated with English, social studies, math and science. Goal is to have 36,000 Georgia students in the PECE program by 1974-75.

For further information, contact Vocational Education Division, State Dept. of Education, State Office Building, Atlanta, Ga. 30334.

Career Education curriculum cluster development efforts by USOE continue at a funding level of about \$4 million annually, under contracts awarded by the BOAE's Curriculum Center. Current contracts include:

- Recreation, Hospitality and Tourism — Research Foundation, U. of Kentucky.
- Construction — Texas State Board of Vocational Education.
- Manufacturing — New Jersey State Board for Vocational Education.
- Communications and Media — Oregon State Board for Vocational Education.
- Public Service — California State Board for Vocational Education.
- Agri-Business, National Resources and Environmental Protection — Curriculum Management Lab, Ohio State U.

Pittsburgh's Exploratory Occupational, Vocational and Technical Education (OVT) program for 7th and 8th graders offers an example of in-school simulation. A program for both boys and girls, it involves 110 learning units to give hands-on experiences in the areas of business communications, clothing and textiles, construction, foods and

nutrition, health and community services, information processing, manufacturing, merchandising, power and transportation, and visual communication. For more information, contact John Sobosley, Assistant Superintendent, Pittsburgh Public Schools, 341 S. Bellefield Ave., Pittsburgh, Pa. 15213.

HIGH SCHOOL LEVEL

The Career Education emphasizes on merging academic and vocational programs, structuring the curriculum around occupational clusters, and providing a salable skill to every student, all point clearly toward a renewed interest in making each high school as comprehensive as possible.

These emphases, combined with concerns that separate Voc Ed facilities will never be able to shake the "second-class" image, appear to spell the end of the separate vocational high school movement once popular in industrialized urban areas. Even New York City, which as late as 1972 was still operating a system of 67 academic and 24 vocational high schools, has announced its intent to convert all of them to comprehensive high schools "with all possible speed."

However, the economic reality of making every high school truly comprehensive (especially if it is in a small rural community) is leading many states and communities toward the development of supplementary centers to increase the options for students whose high schools cannot offer comprehensive programs. Generally, these kinds of regional centers — operated cooperatively by several school districts or as a supplementary center for all of the high schools of a large district — can be classified as area vocational schools or as career enrichment centers.

Spurred by the 1968 Vocational Education Act, many states developed a substantial network of area vocational schools — facilities required to provide training in at least five vocations to both secondary and postsecondary students. Because they are basically vocational schools, and at odds with the Career Education goal of blending the academic and vocational offerings into a unified curriculum, they are beginning to be the subject of some controversy.

Critics point out that they are expensive, they segregate their students from normal extracurricular activities, and their development has probably delayed the more desirable effort to infuse more vocational programs into regular high school cur-

ricula. As noted earlier, Kansas is planning to merge its area vocational schools with its community college system.

More in line with the Career Education concept are career enrichment centers, which offer clusters in both academically oriented and vocationally oriented fields. At such a center, remote from the secondary school, a student can obtain a two or three-hour cluster component which dovetails with his high school program, much in the same way as a cooperative education student leaves the campus for a portion of his school day.

What seems to be emerging as the high school component of Career Education is an effort to provide as comprehensive an array of options as possible to the student — within the comprehensive high school, but often via an individualized program that has the student receiving parts of his education away from the school campus in either an enrichment center, community college, alternative school setting, or cooperative education experience in the community.

A few examples of high school Career Education innovations:

The Skyline Career Development Center in Dallas offers a spectacular example of the supplementary enrichment center. Completed in 1971 at a cost of \$21 million, Skyline is composed of 14 acres of classroom and laboratory buildings on an 80-acre campus. It includes a comprehensive high school as well as the Career Development Center (CDC). The CDC serves more than 20 Dallas high schools, providing education in 28 career clusters that range from the fine arts and advanced science to horticulture and the world of construction; and it also serves 3,000 adults in an evening Center for Community Services program. Its \$5 million in equipment ranges from a complete color TV studio and an electronic piano lab to a total graphic arts facility, cosmetology lab, dental assistant lab and complete computer facilities.

Students attend three hours a day at CDC, for which they earn 2.5 credits, and the remainder of their school day at their home high school. The instructional programs are based on performance objectives, as are progress reports (however, letter grades are reported back to the home high schools at the end of the semester). Some 225 people from business and industry serve on advisory committees which are coordinated by a full-time Chamber of Commerce executive. Although the CDC operates only during the regular school year, it was used during the summer of 1973 to give 8th and 9th

graders exploratory experiences. Future plans call for full-year operation.

For further information, contact Skyline Career Development Center, 7777 Forney Rd., Dallas, Tex. 75227.

Contracting with private schools to provide high school students with career opportunities unavailable in their regular high school is a growing trend. In Washington, 11 school districts contract with private beauty schools for cosmetology courses; and Arizona's career education program allows its schools to contract for such programs, with the private school being paid directly from State Dept. of Education funds for the cost of tuition.

The Vocational Interdisciplinary Program (VIP) of South Carolina provides one example of the many places that are attempting to blend academic and vocational curricula in their high schools. A team-teaching approach for 11th and 12th graders, VIP involves assembling a team made up of one vocational teacher and two or three academic teachers (usually English, math and science). They meet for a four-week planning workshop prior to the school year and develop curriculum guidelines, including behavioral objectives and pretest materials. The first three areas developed were machine technology, electricity and electronics. High schools in Winnsboro, Camden, Lancaster and Chesterfield are participating. In essence, the vocational subject area is the laboratory for application of academic skills and concepts, and the academic classrooms become "resource areas" for the students to gain the knowledge and skills for success in the vocational subject. At Lancaster High School, the team has also developed a system of individualized contractual teaching which permits students to advance at their own rates. For further information, contact Project VIP, Region V Educational Services Center, Lancaster, S.C. 29201.

"Action-Learning" concept, involving released time in which high school students learn from experience and associated study, is expanding rapidly — with promotion from the National Assn. of Secondary School Principals (NASSP).

A survey by NASSP of job opportunities indicates that "four million young people could be employed full-time for one year in action-learning programs, or that almost every one of the 22 million young Americans age 15-20 could be employed for over three hours per week."

Many districts already provide off-campus enrichment opportunities for high school credit.

Examples include a senior option plan at Highland Park, Ill.; internship experience at Portland, Ore.; the Dynamy program at Worcester, Mass.; and the Community School program at West Hartford, Conn.

As a sample of how such programs can work, "Project Involvement" at Nicolet High School in Milwaukee allows college-bound seniors to obtain prevocational experiences related to their career choice in either one semester or full-year work experiences. The student writes his own project proposal (approval is required from parents, counselor, in-school advisor and out-of-school advisor), spends about 10 hours a week on his or her work project, and earns graduation credit. During the 1972-73 school year, 85 of the 500 Nicolet seniors participated.

For further information, contact Donn Leussler, Director of Curriculum, Nicolet High School, 6701 N. Port Washington Rd., Milwaukee, Wis. 53217.

DEVELOPMENTS OUTSIDE THE SCHOOLS

Business-industry support of education is growing rapidly, and one of the best examples of the exciting possibilities is California's Project 70s Community Alliance for Career Education. A statewide effort to enlist business-industry-government employer help for education, Project 70s is operating with five task forces: (1) career information, using resource people to help in grades 6-12, (2) tutoring in basic subjects by volunteers supplied by the participating companies, (3) work experience programs to provide part-time jobs for 11th and 12th graders and job exposure for school credit for 9th and 10th graders, (4) teacher and counselor training via summer business-industry jobs or summer observation workshops, and (5) aid to school administrators, through internship training programs and consultations, in business-industry techniques in the areas of budgeting, purchasing and personnel management.

A key concept of Project 70s has been to restrict advisory council membership to the *chief* executive officer of participating organizations to help ensure genuine commitment. Among locations where Project 70s was at work early in 1973 were Los Angeles, Pasadena, San Francisco and Oakland. In Los Angeles alone, the goal is to reach one-fourth of the county's 700,000 7th through 11th graders by July 1, 1975 — a goal requiring over a three-year period an estimated one million volun-

teer man-hours by 10,000 people from 1,500 companies.

For further information, contact Project 70s Community Alliance, 621 S. Virgil Ave., Los Angeles, Calif. 90005.

Another example of business/education/labor cooperation was provided by the Chamber of Commerce of the United States in February 1973. Drawing together 240 concerned persons, the Chamber of Commerce hosted its first national conference on Career Education.

Twenty small discussion groups at the conference were asked to react to 10 questions (see p. xx) focusing on the role of the business/education/labor community in Career Education. The suggestions were then incorporated into a booklet, *Career Education and the Businessman*.

The Chamber of Commerce urges local C of C's to begin to think of their role in Career Education in accordance with local conditions. The most important point made by the book, however, may be the following: "A situation can easily be envisioned that finds both school and business-industry personnel anxiously waiting for the other to initiate action. Career Education is too important to fail simply because no one feels it is proper to take the initiative."

For more information or copies of the booklet (\$1.50 each for up to 10 copies; quantity discounts), contact Thomas P. Walsh, Director of Manpower and Poverty Programs, Chamber of Commerce of the United States, 1615 H St., N.W., Washington, D.C. 20006.

Descriptions of other business/industry/education projects may be found in the USOE's National Center for Educational Communication PREP report entitled *Job-Oriented Education Programs for the Disadvantaged* and in a follow-up article entitled "Enduring Partnership" by Trudy W. Banta in the January 1972 issue of *Manpower* magazine.

Access to the rapidly expanding health technologies is being provided in several innovative programs that feature learning experiences for high school students in hospitals, medical labs and clinics. One, cosponsored by the Houston Independent School District and Baylor College of Medicine, is an alternative high school.

Students attend regular classes in facilities at Baylor, but also observe and participate in medical technologies toward a goal of on-the-job training during their senior year. The program began in the

fall of 1972 with 45 sophomores and hopefully will expand to a 250-per-year admission for a total student body of 750. Intent is to provide graduates both entry-level skills and prerequisites to continue studies in the health progressions.

For further information, contact Houston Independent School District, 3830 Richmond Ave., Houston, Tex. 77027.

A similar type of arrangement is found in the Allied Health Professions Project in Los Angeles, which began in 1970 with students from four high schools utilizing four hospital settings. However, in this program students take course work in their high school during the morning and move to the hospital setting during the afternoon. Senior year features half-time paid occupational job training.

For further information, contact UCLA Allied Health Professions Project, Division of Vocational Education, 1003 Wilshire Blvd., Santa Monica, Calif. 90401.

In Baltimore, a whole cluster of programs is operated under the Health Sciences Careers Program through cooperative arrangements involving the Center for Allied Health Careers of the Johns Hopkins Medical Institutions, Baltimore Public Schools, Neighborhood Youth Corps, and other groups. Programs, many aimed at poverty-area young people, include: Dunbar Medi-Schools, School Without a Building, HSCP After-School and Summer Program, NYC In-School Program, NYC Out-of-School Program, Baltimore Schools Job-Oriented Programs and Direct Search for Talent.

For further information, contact Center for Allied Health Careers, Johns Hopkins Medical Institutions, 624 N. Broadway, Baltimore, Md. 21205.

Physical facility innovations are being developed at several locations. Mobile instructional labs, which travel from school to school to provide "hands-on" opportunities, are in widespread use. Thiokol Chemical Corp. has developed a "trans-modular learning system" which involves constructing a semipermanent core unit at a school site, and a portable unit designed for a specific vocational area which can be moved from site to site and connected to the core in about four hours. Aim is to reduce costs by avoiding duplication of facilities at several schools. Prototype is being installed in seven school districts in Fresno County, Calif., for operation in the fall of 1973.

Instructional programs developed by the U.S. Air Force and tested for adaptability to civilian

career training are now available for the cost of reproduction from the National Laboratory for the Advancement of Education, a division of the Aerospace Education Foundation.

Currently available are complete courses of instruction in auto/truck mechanic, nurse's aide, food inspector, medical service fundamentals, structural engineering assistant, apprentice carpenter and aircraft maintenance fundamentals. Prices for the complete packages range from \$27.40 to \$77.20. Also available for \$1, on microfiche, is the *Air Force Inventory*, a 228-page encyclopedia of all 82 Air Force instructional systems. For further information, contact National Laboratory for the Advancement of Education, Aerospace Education Foundation, 1750 Pennsylvania Ave. NW, Washington, D.C. 20036.

For further information, contact Bernie R. Diamond, Director for Program Development, Thiokol Educational Development Operations, P.O. Box 1619, Ogden, Utah 84402.

Educational Facilities Laboratories has published a 48-page guidebook for space and station design requirements for career and vocational education facilities, entitled "Career Education Facilities" (available at \$2 from Educational Facilities Laboratories, 477 Madison Ave., New York, N.Y. 10022).

The Joint Council on Economic Education has been developing and promoting improved economic education at all levels since 1964 via its Developing Economic Education Project (DEEP), Cooperating Schools Program and World of Work Economic Education Project (WOWEE).

DEEP began in 1964 as an experimental program in 29 school systems to build more economics into the curriculum, improve teacher preparation, create and test new instructional materials and identify patterns of curriculum change that can be used in economic education. The Cooperating Schools program is an extension of DEEP, wherein some 100 districts are modifying the DEEP models for application to their local districts. WOWEE is a two-year federally funded project to provide inservice activities and dissemination of the economic education programs.

Among the outcomes of these various projects is a *Handbook for Curriculum Change*, which details an approach for introducing economics into the K-12 curriculum. It is made up of a 32-page guidelines section (\$2) and an appendices section

detailing 100 examples for achieving curriculum change (\$15).

For further information, contact S. Stowell Symes, Director of Curriculum, Joint Council on Economic Education, 1212 Ave. of the Americas, New York, N.Y. 10036.

Learning Activity Packages (LAPs) for individualizing distributive education programs to meet the competencies needed for particular occupations have been developed by the Wisconsin Dept. of Public Instruction and are being disseminated by an 11-state consortium. A 1973-74 printing is planned of 448 LAPs covering 983 competencies for 69 marketing and distribution occupations at a cost of \$300, with computer tape dubbing and a slide inservice program as additional options.

For further information, contact Wayne J. Harrison Jr., Director of the Inter-State DE Curriculum

Consortium, Wisconsin Dept. of Public Instruction, 126 Langdon St., Madison, Wis. 53702.

Seven directories listing 1,600 occupational education training and curriculum documents produced by federal agencies have been compiled by the Northwest Regional Educational Laboratory and are available through the Government Printing Office. The directories, with the GPO order numbers, are: Agriculture, #1780-0836 (\$1.50); Distributive Education, #1780-0837 (\$1.25); Health Occupations Education, #1780-0838 (\$1); Home Economics, #1780-0839 (\$1.25); Office Occupations, #1780-0840 (\$1); Technical Education, #1780-0841 (\$1.25); Trade and Industrial Occupations, #1780-0842 (\$1.50). Full title of each is "Vocational Instructional Materials for (subject area) Available from Federal Agencies." Order from Supt. of Documents, Govt. Printing Office, Washington, D.C. 20402.

Chapter 8



Career Counseling, Guidance and Placement

A critical ingredient of Career Education — if true self-awareness, decision-making skills and career awareness are to be developed in every individual as proposed in the global concept — is continuous counseling and guidance integrated with the educational program at all levels. But, a study of the current status of this piece of Career Education seems to indicate that it is further away from implementation than other components.

In its usual plain-talking style, the National Advisory Council on Vocational Education (NACVE) issued its Sixth Report in 1972 under the title *Counseling and Guidance: A Call for Change*. In his letter of transmittal to the HEW secretary, NACVE Chairman Lawrence Davenport stated bluntly that, "The council has discovered that the general quality of counseling and guidance services today is greatly in need of improvement. The counseling and guidance profession is not keeping up with the latest developments in our educational system."

Based on the work of a committee headed by NACVE member Delfino Valdez (himself a counselor, at the Albuquerque Technical-Vocational Institute), the report observed that "on the surface, counseling and guidance seems to shine." It noted that the student-counselor ratio was cut in half between 1958 and 1968 (to 475:1 secondary, 3,500:1 elementary), that professional standards have been raised, and that the number of colleges training counselors has doubled in the past 15 years.

"When we look beneath the surface, the status of counseling, in practice, looks shaky and shabby," the report continued, citing a number of "concerns":

- There is valid criticism of counselors and counseling by "other educators, parents, students and industry."
- Some authorities are recommending elimination of elementary counselors.

- Many school boards are eliminating counselors as "economy" measures.
- Adult and community counseling agencies are still nonexistent in most parts of the country."
- "Counselors are much more competent in guiding persons towards college attendance than towards vocational education."
- Placement and follow-up services are generally not being provided as part of guidance programs.
- Lower counselor-counsee ratios in poverty areas are needed.
- "In almost no setting is the counselor-counsee ratio low enough to justify strict one-to-one counseling, but counselors still persist in their attempts to use this technique, rather than group counseling approaches, as their primary method of helping people solve their problems."
- Counselors know little about the world of work.
- Counseling services are rejected by hard-core disadvantaged people as "irrelevant and ineffective."

Observing that "counselors have been more victims than villains," the report placed the blame on school administrators "who assign counselors clerical and administrative chores"; on parents "who pressure counselors to help students gain college admittance"; on state departments for failing to make work experience part of counselor certification requirements; on colleges "which make only one course in occupational guidance" a requirement for counselor preparation; on Con-

gress for its failure to provide specific funding for counseling and guidance; on business and industry "for criticizing counselors rather than mounting forward-looking programs" to help counselors improve their world of work knowledge; on Voc Ed administrators "for being unwilling to use as much as 4% of their financial resources" for counseling services; and, finally, on organized labor "for being neglectful in establishing a closer relationship with education in general and guidance in particular."

Needed reforms, NACVE, said, include requiring work experience for counselors, infusing people from business/industry/labor into the counseling system, requiring an on-site business/industry/labor practicum in counselor education, inservice training for existing counselors, development of paraprofessionals to assist counselors, improved counseling services for special publics (minorities, disadvantaged, handicapped, correctional institution inmates, veterans), establishment of nationwide "community service counseling programs," lowering pupil-counselor ratios, making job placement and follow-up a part of all counseling programs, providing categorical funding for counseling and guidance services in all laws which call for such services, and considering career development programs a major component in Career Education, "both in legislation and in operating systems."

Another voice which has called for some drastic revisions in counseling and guidance programs is Eli Ginzberg, director of the Conservation of Human Resources Project at Columbia U. and chairman of the National Manpower Advisory Committee. The three-year human resources project, a study of guidance practitioners and institutions and the role of guidance in career decision making, is reported in detail in the 1971 book, *Career Guidance: Who Needs It, Who Provides It, Who Can Improve It*.

Decrying current counseling efforts to help students make "life adjustments," Ginzberg observes that "the great preoccupation of counselors with adolescents' emotional development is based on the assumption that what youth need most is help in clearing away some of the psychological underbrush which litters their pathways into the world. . . . Unfortunately, the paths of many youth have been narrowed or closed, starting at birth, by family and neighborhood poverty, minority status, poor schooling and the like. Often the prime need of such persons is for substantive advice on jobs, skill training, two-year college programs with direct links to occupations, and other information and

services with strong vocational input that will help them find ways to make a living."

Among Ginzberg's recommendations for change are that the counseling profession "abandon psychotherapeutic focus and concentrate . . . on educational and career guidance"; work to "firmly link counseling services to other kinds of client support" such as work orientation, day care services, transportation, job referral services and medical assistance; reform guidance counselor education; change the regulation "that only teachers can become certified school counselors"; and "expand guidance resources for both young and mature adults . . . and retard the slow but steady trend toward bringing guidance services into the elementary school."

Paralleling NACVE's observation about counselors being victims, Ginzberg observes that "most guidance personnel have their work cut out for them not by themselves but by others" and that they "are far more subject to the administrative exigencies of the school or agency for which they work than they are to professional goals and guidelines." He recommends that the public become involved "in the direction, scope and emphasis of school guidance services" and notes the responsibility for governmental agencies to provide better occupational information counseling tools and for support of research "so that we better understand the various factors, both institutional and personal, that contribute to career decisions and career success."

The Counselor's Role In Career Education

Many Career Education spokesmen debate Ginzberg's recommendation for a de-emphasis in elementary counseling, and see the counselor as a key person in the overall development of Career Education at all levels.

In most locations where Career Education is being implemented, the counselor role is being described with terms such as "career resources coordinator" and "leader in program restructuring." As noted earlier, Marland suggested the counselor is uniquely qualified to assume the "central role of orchestrating the many parts of education that must flow together if career education is to become a reality."

This emerging role was discussed by several speakers at the 1972 AVA convention. Robert Swan of California State U. at Long Beach described his institution's preparation of career guid-

ance specialists – persons who are experts in career development, career information and career training opportunities; and who function as a consultant to “general practitioner” counselors, work experience coordinators and faculty members, and as a general liaison person between the schools and the community. Cas Heilman of Michigan State U. recommended strengthening of career information skills, leadership and communication skills for both faculty and community relations/resource development efforts, information delivery system expertise, and understanding of career development theories and practices.

The use of group counseling techniques is clearly on the rise, as indicated by responses to the survey conducted for this report. Those school systems which are implementing Career Education are utilizing counselors as key members of the developmental teams. Also growing rapidly is the acceptance of placement services for all students, with counselors staffing these positions.

USOE Deputy Comr. William Pierce plans to strengthen his bureau's Career Development Guidance, Counseling and Placement Unit. Already funded is a U. of Missouri project to produce a detailed, illustrated guide for use by the states in helping their local districts design and implement effective career development, guidance, counseling and placement programs.

All of the systems in the School-Based Model are working on the guidance component, also. At Mesa, for example, an extensive survey of the guidance and counseling needs expressed by young people and adults was followed by an analysis of the current activities of counselors. At the senior high, the results indicated counselors spend 66% of their time and resources in registration – schedule changing and orientation, 10% in educational-vocational counseling, 5% in interpersonal counseling, 5% in intrapersonal counseling, 5% in attendance, 3% in inservice activities, and 1% with clubs.

Data from the two Mesa surveys will be used to build “an accountability model for guidance service” that includes “a competency-based training program for guidance personnel based upon measurable student outcomes through career education” and “validation procedures . . . which will insure that the guidance personnel function will remain sensitive to the changing needs of students over a long-range multiyear developmental process.”

The role of the counselor in Career Education probably will remain hazy for some time to come. A 1972 study of the status of career guidance in

secondary education, conducted by the College Entrance Examination Board (CEEB), concluded that “guidance is moving in so many directions that its professional character in 1975 is very chancey to predict.” CEEB added an ominous note: “Since many counselors are strongly committed to a professional image that stresses personal and educational counseling, it would not be surprising if the career-education movement created a serious professional cleavage among school guidance personnel.”

Career Guidance Resources

Numerous resources and systems to assist in the career guidance function are on the market or under development. A sampling of some of them:

VIEW (Vital Information for Education and Work), developed originally by the San Diego schools, is a system for storing occupational and educational information on microfiche mounted in data processing aperture cards. VIEW has been widely accepted and adapted, and more than 30 states are now using the system (often with a new acronym – WISC, PENNscript, VITAL, WORK).

The system involves compiling – and frequently updating – information about occupations, putting the information into a standard format (what the occupation is about, educational and skill requirements, employment and advancement prospects, salary and working conditions, where to get the education and training, sources for more information), filming on microfiche which is mounted in the aperture card, and making decks of the cards available along with a reader-printer to students, teachers and counselors.

One of the most active of the early developments is SIGI (System of Interactive Guidance and Information). Designed by Educational Testing Service, SIGI is helping 2 million community and junior college students in 1,100 institutions with career decision making.

In SIGI, the student interacts with a computer in such a way as to examine and explore his own values, to obtain and use relevant information, to interpret predictive data and to formulate plans. The interaction provided by the system is intended to help the student arrive at tentative career decisions and to modify his decisions as he gains new insights and additional information. Both educational and occupational options are involved in the student's decision making. In this way, the SIGI designers say, the student is not only making

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decisions but he's learning how to make decisions.

Students get a chance to see how well certain occupations fit declared values; they also can compare their job preferences with probability of success in chosen fields. They learn the educational requirements for occupations, as well as possible alternative programs and pathways to a chosen occupation.

SIGI designers emphasize that the system's use on process "does not pretend to insure the 'right' choice — except insofar as the right choice is defined as an informed and rational choice."

The data processing card can be pre-punched with such factors as aptitudes needed for the occupation, educational level required, and physical requirements, so that a computer print-out of occupations worth investigating can be prepared to match a particular individual's preferences and aptitudes.

For further information, contact Regional Career Information Center, San Diego County Dept. of Education, San Diego, Calif. 92101.

Computer-assisted guidance experiments continue in several locations, but none has come into as widespread use as was anticipated a few years ago. Ginzberg has characterized much of this work as "experimenting with big computer operations in guidance that promised much and produced little."

One active early project in computer-assisted guidance is CVIS (Computerized Vocational Information System), developed at Willowbrook High School in Villa Park, Ill., to serve students from junior high through community college levels. Information on careers is interrelated to the student's academic history and interests. CVIS is gaining acceptance throughout Illinois and in a few other states.

Other current projects include:

- OIAS (Occupational Information Access System) in Lane County, Ore., a system in which students in 40 junior and senior highs can hold dialogues with a central computer via teletypewriters located in each school.
- A statewide Ohio project which links 10th graders' Ohio Vocational Interest Survey (OVIS) data and their 9th-grade General Aptitude Test Battery (GATB) scores with information on 114 vocational groups based

on the Dictionary of Occupational Titles classification system. Each student receives a report linking interests, aptitudes, appropriate careers and the possible paths leading to them.

- MOTIS (Missouri Occupational Training Information System), which combines information about individuals enrolled in vocational-technical programs, the type and level of training provided, and their subsequent placement, job satisfaction, migration and further education, for use by educational planners as well as counselors and students.

American College Testing Program has a cluster of programs designed to assist students and counselors in the area of career guidance. Career Planning Program (CPP) instruments are available for both 8th through 11th graders and 12th and 13th grades, to enable occupationally oriented students to assess themselves with regard to career choices, (copies of the profile report are provided to the student, his high school and up to three postsecondary institutions of his choice); the ACT Assessment Program for college-bound students and their schools; and the Assessment of Career Development (ACD) program — new in the 1973-74 school year — designed to provide secondary school counselors with a summary of the career development progress of their students.

For further information, contact ACT, P.O. Box 168, Iowa City, Iowa 52240.

One of the most comprehensive analyses of currently available materials and technology in career guidance is the College Entrance Examination Board's report of its 1972 status study. Entitled *Career Guidance in Secondary Education*, the 66-page publication is available for \$2 from the Publications Order Office, College Entrance Examination Board, Box 592, Princeton, N.J. 08540.

A useful publication related to placement and follow-up functions is the National Center for Educational Communication's PREP Report No. 32, *Job Placement and Followup of Secondary School Vocational Education Students*, available for 55 cents from the Supt. of Documents, Government Printing Office, Washington, D.C. 20402 (DHEW Publication No. OE 72-9).

Chapter 9



What's the Future of Career Education?

Is Career Education the new look in American education, or something that will be in the history books 20 years from now as just one more of the fads that held the spotlight for a while and then faded away?

While it is problematical that anything as idealistic and all-encompassing as the total Career Education concept will ever be realized in its entirety nationwide, the evidence would seem to indicate that it is — in the words of its proponents — an idea whose time has come. It has its roots so deeply in some basic philosophical goals of American education, and addresses itself to enough of the critical problems being experienced by the nation in this postindustrial era, that it can scarcely be dismissed flippantly.

There is common agreement that the present system is failing to meet the educational needs of large numbers of young people and adults, and that some kind of change is needed. There is also ample evidence that the publics to whom the educational systems look for their support are demanding that some dramatic changes occur.

The single most important distinguishing feature of American education, as compared with those of other nations, has been its philosophical commitment to provide educational opportunities to all people so that each individual might be able to reach his or her fullest potential. That philosophical commitment is at the very heart of the Career Education concept.

Most of the innovations and changes which have already been widely adopted — individualized instruction, the open school and open classroom, use of paraprofessionals, the behavioral objectives

approach to instruction, the improvement of educational options for young people and adults, the use of new technologies for educational purposes — are in total harmony with Career Education, and in that light the concept can be viewed as a unifying theme for advances which have already been made.

From a purely pragmatic viewpoint, the federal priority for Career Education development and the genuine commitment to implement the concept on the part of many states and communities would indicate that developments are going to continue for some time to come.

There are plenty of pitfalls. Perhaps the biggest one is the possibility that educators will make the mistake of viewing Career Education as something they can confine within the walls of the school building, without the full involvement of the community and its resources. Another is the possibility that professional jealousies — between vocational and academic teachers, between different factions of the counseling profession, between universities and community colleges — will impede the unified approach that is one of the keys to Career Education. In some locations, the professional negotiations process may get in the way — the dollars needed to begin implementation of Career Education changes are the same dollars that negotiators want for improved teacher salaries and fringe benefits.

But in spite of the pitfalls, the criticisms and the continuing dialogue about how to define the concept and implement it, the evidence all points to a strong possibility that Career Education is the major redirection of the entire educational system.